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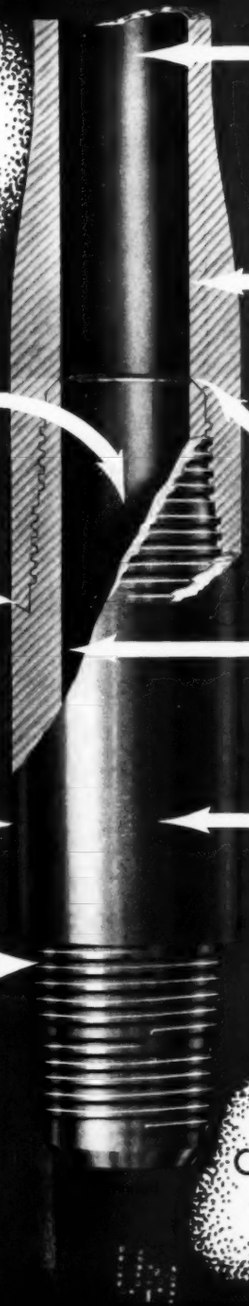
HYDRIL

Internal Flush Drill Pipe Joints

The ONLY Drill Pipe Joint that embodies ALL of these important features!



1 The hole through the Tool Joint is THE SAME SIZE AS THE FULL INSIDE DIAMETER OF THE PIPE. This joint provides the largest circulation passage obtainable in ALL sizes of drill pipe, from 2⅜-inch up.

2 This beveled shoulder locks the tool joint securely in the drill pipe and defies creep—the tool joints never have to be welded to the pipe. A similar shoulder on the other end of the tool joint forms a leakproof outside fluid seal and solid shoulder at the working thread.

3 Strong, one-piece tool joint, made of selected steel and heat-treated for maximum strength and long-wearing quality.

4 The exclusive Hydril double-step thread is wide at the crest, resists battering and wear. Screws up easily, without galling. Extra strong because more metal is placed in shear, and the double-step feature provides more metal at the base of the pin and inside of the box.

5 WIDE OPEN fluid passage through the entire length of drill pipe.
All manufacturers of seamless drill pipe make pipe for the Hydril Internal Flush Joint.

6 EXTRA STRENGTH at the thread in the pipe. Elevator manufacturers make elevators to fit the upset of this joint.

7 This tapered seat insures a tight inside fluid seal, preventing erosion of the joint and threads due to leakage of the drilling fluid under high pressure.

8 No restrictions, off-sets or reliefs in the fluid passage to cause eddy-currents and sand cutting of the pipe or tool joint.

9 The threads are cut in the pipe and the tool joints are made at the Hydril plants at Torrance, California, and Houston, Texas.

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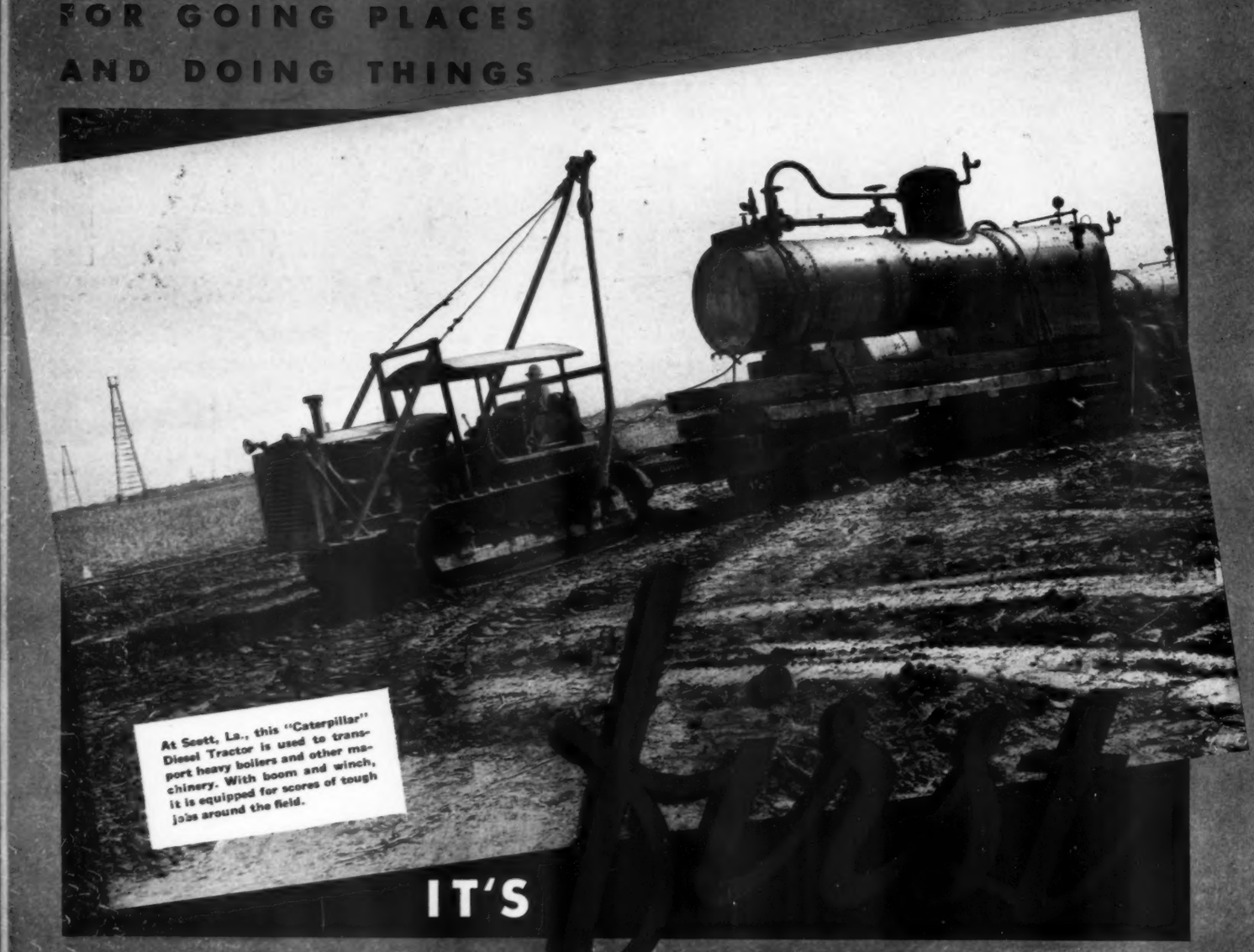

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Strong Markets Incentive to Operators

STABILIZATION of the gasoline market on the West Coast and increases in the prices of other major refined products in that area, connected with the lowering of flood waters in the East presented two of the most gratifying conditions in the oil industry during the week in review. Stocks of gasoline in the United States continue to rise, but at a much slower rate, thus reflecting the policy of refiners in curtailing their runs to stills. The decreased runs coupled with daily increasing consumption as the vacation season approaches should serve to give added strength to the industry as a whole. Reports of purchasing companies paying premiums for East Texas crude and persistent suggestions that Mid-Continent crude prices will be raised by June 1 add to the good feeling in the industry.

One feature of the week was that Louisiana and Kansas exceeded all their past records in production, Louisiana with 203,110 bbls. a day and Kansas with 159,625 bbls. Little blame attaches to Rodessa for Louisiana's increase as the 118 wells in that field are producing below their allowable. Kansas' increase is attributed to the fact that new pools, long without any outlet, are now being drawn upon by pipe lines.

Fifty-three locations for wells have been made in northern Oklahoma City, thrown open to drilling when a majority of the votes cast at last week's election favored additional town lot operations in that city. Logan County, Oklahoma, was given its eighth oil pool when a wildcat in section 20-18-4w, near the Lovell and Marshall pools flowed 60 bbls. per hour from Wilcox sand. In the much discussed Talco pool in Titus County, northeastern Texas, Peveto and others' discovery well produced 30 bbls. per hour on its first pumping test and the Humble Oil & Refining Co.'s well southwest of it, in Franklin County, swabbed about 500 bbls. in 11 hours and then flowed 285 bbls. by heads in 13 hours and 15 minutes through tubing. The Seven Sisters and Samfordyce fields in Southwest Texas were extended and a wildcat in the San Patricio area was showing oil. Gulf Coastal Louisiana saw two pools extended and oil discovered in a gas field.

Production 2,896,664

Increase 37,368

The largest one hour natural production of any well in New Mexico is credited to a new well in the Monument area in Lea County which made an open flow of 1,243 bbls. in 60 minutes, or at the rate of 29,832 bbls. per day. A 10,000,000-foot Oriskany sand gas well was completed in Kanawha County, West Virginia.

Michigan experienced the best week of the present year with 3,000 bbls. new initial production from three pools. In California the banner well was a 6,480-bbl. completion in Kettleman Hills.

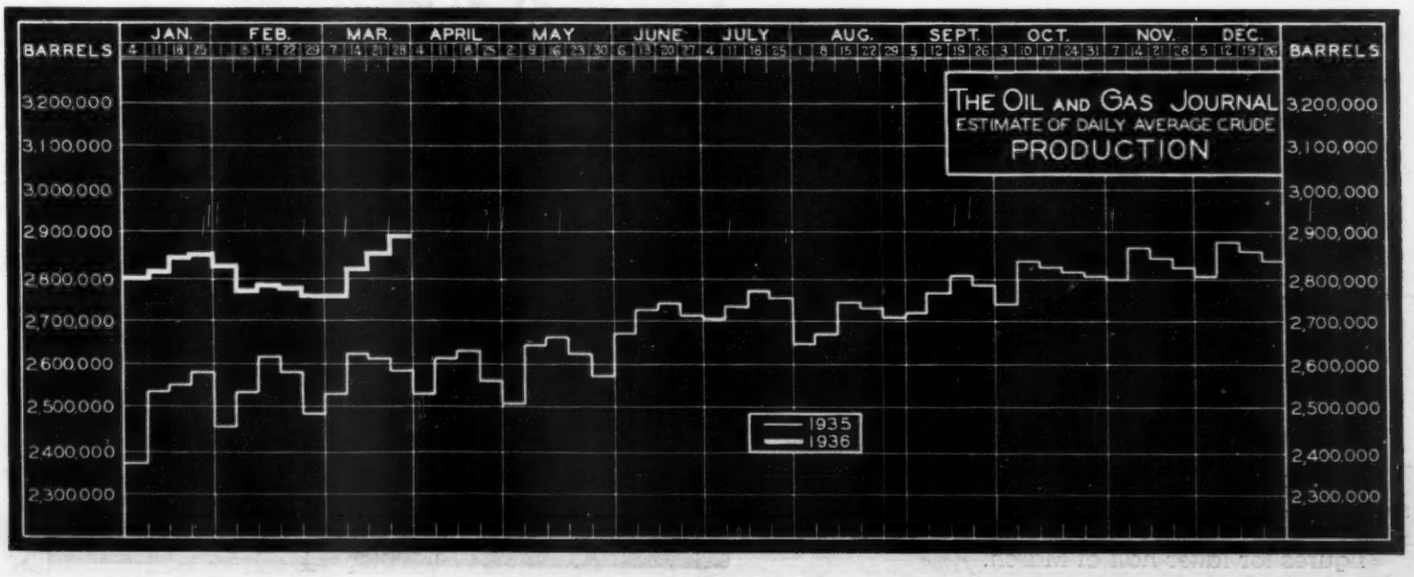
Daily Average Production for Week

	March 28 1936	March 21 1936	March 30 1935
Oklahoma City	158,350	127,025	146,875
Seminole-St. Louis	99,300	100,150	95,525
Remainder of State	288,375	298,725	250,250
Total Oklahoma	546,025	525,900	492,650
East Texas	458,654	456,050	473,497
West Texas	176,063	175,652	146,614
North Central Texas	82,570	82,347	90,273
Texas Panhandle	63,126	62,754	73,065
East Central Texas	49,897	49,798	51,475
Gulf Coast—Texas	229,088	228,250	182,287
Southwest Texas	74,012	73,303	60,270
Total State of Texas	1,133,410	1,128,154	1,077,481
North Louisiana	65,460	65,050	22,925
Gulf Coast—Louisiana	137,650	136,500	96,597
Total Louisiana	203,110	201,550	119,522
Santa Fe Springs	43,100	43,000	37,950
Long Beach	68,150	69,500	60,500
Mountain View	26,850	26,900	10,750
Kettleman Hills	77,000	77,750	64,000
Remainder of State	349,650	349,100	300,800
Total California	564,750	566,250	474,000
Kansas	159,625	150,975	154,900
Arkansas	29,695	29,705	30,595
Eastern fields	108,500	108,000	106,750
Michigan	37,759	35,072	37,712
Rocky Mountain area	113,790	113,690	95,740
Total United States	2,896,664	2,859,296	2,589,350

Crude Oil Stocks in U. S.

(BUREAU OF MINES ESTIMATES)

Week ending March 21, 1936	310,350,000
Week ending March 14, 1936	310,120,000
Week ending March 23, 1935	339,537,000



SPARKS FROM THE NEWS

Alternatives

Increased Texas allowables and Louisiana's present record production level are two reasons why crude prices may not be raised. Greater production gets the call over higher prices.

Record

Gasoline consumption for first half of March shows lusty increase over last year. Early A.P.I. estimates indicate 13 per cent gain.

Exit

East Texas Pipe Line Co. opened new line March 29, running Rodessa crude to its Longview refinery. Capacity of line is 30,000 bbls.

Landonia

Crude production in Kansas registered all time high last week, averaging 159,625 bbls. daily. Spotlight for Kansas these days.

Exhibit

Shreveport welcomes the first meeting in Louisiana of the A.P.I. production district all the more because it has Rodessa to show.

Error

Possibly the Congressional stream pollution bill was based on the idea the oil industry put the salt water in Salt Creek.

Tactics

Governor Murray is no doubt regaling his cronies with reminders of how differently he conducted his military operations.

Escape

Flood damage to eastern oil properties was less than expected. Decreased gasoline consumption in afflicted areas will be apparent in figures for latter half of March.

Buoyancy

Prices for crude and products are firm with kerosene featuring. Pacific Coast gasoline increase still expected.

Defender

Oklahoma City's "Mansion Area" has 53 locations and active operations following popular election verdict to "drill 'er up." Front page defence of state lands furnishes political fodder.

Inquisitions

Congressional Committee hearings in Washington this week include proposed stream pollution bill, alcohol-gasoline blending bill and natural gas regulatory measure. Ho-hum!

Peli-can

Louisiana Coastal area is furnishing big producers. Deep wells are not region's only specialty.

Flash!

This is news, surely. Humble drilled 7,085-foot producer at Anahuac in 18 days.

Aerial view of north portion of Oklahoma City with white lines tracing boundaries of new drilling zone across street from Capitol

Big Wells Spur Activity in New Oklahoma City Drilling Zone

By L. G. E. BIGNELL

OKLAHOMA CITY, Okla., Mar. 31.—Governor Marland now threatens to place the state property within Oklahoma City under martial law to permit lessors of this land to proceed with the development and drilling activities without interference from the city authorities. The state has asked for bids upon 11 tracts of oil and gas leases on state land and the state board of affairs planned to let these leases on Tuesday. The governor said that he did not believe more than a half dozen national guardsmen would be required to report for duty on the capitol grounds.

In addition to the new development covering state land the federal court has the K. & L. Petroleum Co. case on hearing. This oil company seeks injunction restraining the city from preventing the drilling of a well on the Harns tract, a vacant piece of ground close to the state capitol.

In the meantime 53 new locations have been staked in the new drilling zone north of the state property and of this number 28 locations are now carried as active upon scouts' reports meaning that the work of digging cellars, erecting derricks and starting holes is actually under way.

This is the latest development in the situation in Oklahoma City created by the special election held on Tuesday, March 24, to authorize the new drilling zone 1 square mile in area immediately north of the state property on Northeast Twenty-third Street and west of the limits of the older drilling zone wherein so many large wells have recently been completed.

The city ordinance of Oklahoma City requires the city council to call a special election to create new drilling zones within the city limits and this newest zone has been created following the demand on the part of property owners adjacent to the new wells in the northeast extension to the Oklahoma City field. In addition to creating this new drilling zone, vote was taken upon the resolution submitted by the city council authorizing it to create additional drilling zones after April 10 when the 15-day limit prescribed by the resolution expires.

All of these new areas will be marked by a 300-foot buffer zone between the drilling zone and the restricted district. The drilling sites must be located at least 300 feet back from the boundary of the drilling zone or a space of 600 feet will intervene between the restricted property and the wells.

The law provides that one-sixteenth royalty must be paid by the well owners in the drilling zone immediately adjoining the buffer zone areas to recompense them for the oil secured from beneath the buffer zone property. This law applies equally to property owned by the state and individuals or others and in this manner the state will receive some compensation for the oil under the north boundary of the state land upon which the Capitol Building and the Executive Mansion are built. Other property owners in the restricted areas adjoining the new drilling zones will likewise

Starting well in recently created drilling zone in Oklahoma City just north of Capitol Building

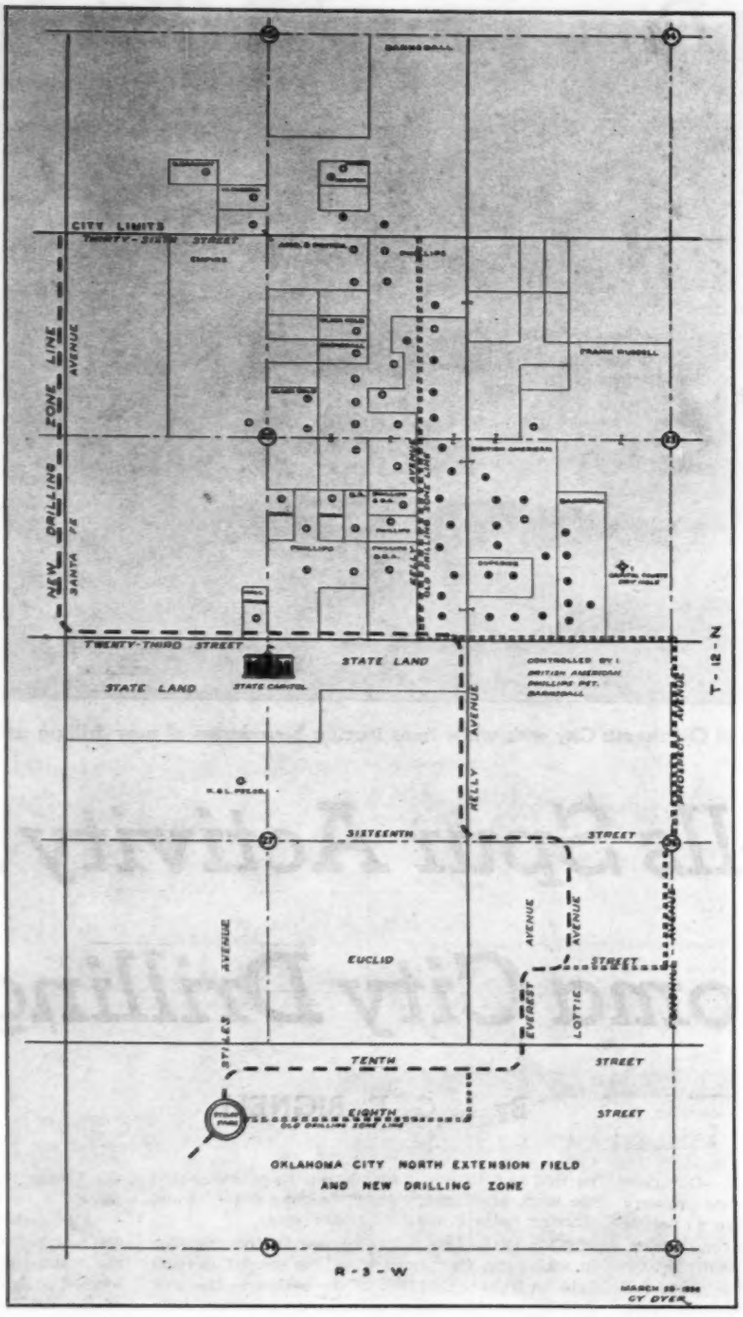
be recipients of this royalty, but no bonus payments are necessary.

Regardless of the provisions created by the city ordinance some time ago when property within the city limits of Oklahoma City was first added to the drilling area of this oil field, there are still many features unsatisfactory to both state officials and private citizens.

One point of contention is the rights of the city to control the formation of drilling zones. This has been designated as a police power and as such is vested in the governing bodies of the municipality. This is true in any city in Oklahoma, and the state land within the city limits in Oklahoma City has been treated much as other land when the matter of new drilling zones has been considered. It has been customary to create these new zones when the drilling developments clearly indicated the possibilities of finding oil beneath land lying within the city limits and adjacent to proven portions of the oil field.

It is contended by the state, however, that it has been discriminated against in this instance and through the creation of the new zone adjacent to the state property for a distance of nearly 1 mile along the north border oil will be lost from the state's property through migration to the wells located 600 feet distance. It is further contended that the 600-foot buffer zone does not offer protection against the migration of gas to the producing wells and this loss of gas depletes the natural energy of the reservoir under state property, and it will therefore be more difficult to secure the oil from this land later when drilling may be permitted there.

These and many other legal questions have arisen since the last election and it now seems quite likely that another election will be called within 60 days to throw open all of the land on the east side of the Santa Fe right of way, generally accepted as marking the west boundary of the Wilcox sand zone in this field. It is possible court action may hasten the opening of this now restricted area because several suits are filed that may have direct bearing upon the city's power to control drilling within the city limits since it has already opened a portion of the area within the city limits for drilling purposes.



Map outlining drilling zones and locations of new drilling sites

Another legal point will have to be settled in the courts pertaining to the constitutionality of the law passed by the fifteenth legislature in 1935 vesting with the State Board of Affairs the right to lease state land for drilling sites. It is contended by some this right rests with the School Land Commission because of a law enacted in 1933 based upon an interpretation of the state charter which states the School Land Commission has jurisdiction over all state lands.

Not only are legal questions raised concerning this extension of the drilling zones in this field, but there are many mechanical problems to be solved as well as some of a financial nature. The city ordinance requires the posting of a $200,000 bond before drilling permit is issued. It also requires that the person or company making application for a permit own the leases to at least 51 per cent of the land within the proposed drilling site. If the lease is covered by 100 per cent ownership by one person or company the drilling permit is immediately issued upon application. If 51 per cent or more is owned by the applicant for drilling permit the matter is referred to the Board of Adjustment created by the city and the damages to other land still unleased but within the drilling site are set and the applicant for drilling license may settle for the amount assessed as damage or the owner of the unleased land may participate in a share equal to his property rights of all oil recovered by paying a proportion of the costs of drilling.

There are more than 40 drilling locations staked in the new drilling zone north of Northeast Twenty-third Street and more than 20 drilling permits have already been issued. Work has been started on as many of these drilling sites covered by permits as possible and this rush of new work has created a shortage of certain kinds of skilled labor. To dig the cellars under the rigs requires the use of dynamite to blast the rock, and first it is necessary to secure permits for this blasting and second it must be done by men experienced in this kind of work. Such men have been hard to find but as rapidly as one cellar is completed they move to a new job, so this will not cause undue delay. Contractors with suitable rotary equipment to undertake the drilling of these 6,400-foot wells are not available in numbers to meet the requirements for the whole of the 40 new locations, and this may delay some operators in getting their wells started. Experienced drilling crews to man these rigs are also not available and it is thought some wells may be drilled with 12-hour tours rather than having the customary three crews work eight hours each as has been common practice in this field. Rig builders were also in demand as well as riggers and movers of heavy equipment. It is thought, however, these labor shortages will only be temporary and work will soon be proceeding in a satisfactory manner. It will take about 50 days to complete a well after drilling is started.

To secure drilling water for these wells many applications have been made to the city water department to furnish water from the city mains. This has its objections because the city water supply is not sufficient to permit the supplying of this volume of water and still permit the reservoirs to accumulate sufficient reserve water to insure an ample supply to last through the summer months. Rainfall has been deficient in this area this winter and spring and some fear is expressed as to the ability of the water system to care for the domestic needs this summer if drilling water is supplied to the many wells to be started in the present new zone and the two additional zones to be opened after April 10.

It is also contended that by supplying such a large volume of water as needed for these many drilling operations the pressure in the city mains will fall below the pressures required by the city ordinance which states a water pressure test at 2,000 pounds must be made semi-annually on pipe lines carrying in excess of 600 pounds pressure. This is a precaution to provide ample supply of water for fire emergencies.

As the drilling zone is adjacent to a drainage system emptying into an artificial lake located in the northeastern part of the city, it is necessary for all drilling operators to provide safety measures to insure against mud from the slush pits overflowing and getting into these drainage channels. This precaution is also necessary to prevent any oil from finding its way into this lake, and to meet these requirements some of the companies are disposing of all excess mud through a pipe line system leading back to the Canadian River.

All derricks will be boarded to prevent the escape of oil or gas when the wells are being brought in and every precaution is being exercised to fully protect property adjacent to the drilling sites against damage. Many of these homes cost from $3,500 to $10,000 each and when the new zones are created further to the east and south adjacent property has been improved with hospitals, apartment buildings, schools and churches as well as some residences valued at as much as $75,000.

Most of the wells will be drilled with steam-driven rotary equipment and gas will be used for fuel. As the boiler plants will be close to improved property in many instances care must be taken to properly protect this property from damage from this source.

Most drilling programs contemplate the setting of a string of 13-inch casing at about 1,000-foot depth and cementing it to the surface. Out of this pipe a 11¼-inch hole will be drilled to the top of the Wilcox sand and cased with 8⅝-inch pipe properly cemented. The wells will then be drilled in with pressure control equipment to prevent mud fluid from entering the formation.

Rodessa Pipe Lines Built or Building to Have 200,000 Barrels Capacity

By J. R. CRUMPTON

SHREVEPORT, La., Mar. 30.—The Rodessa field in the northwestern part of Caddo Parish is now served by four major company pipe lines and an independent line of major capacity is under construction. Together with the small independent refineries in the North Louisiana district, the combined capacity of the outlets runs well over 100,000 bbls. daily. The pipe line capacity take from the field can be doubled in a short time as all of the lines serving the field connect with main trunk lines of the various companies from 8 to 25 miles distance. All of the major purchasers of Rodessa crude also have ample steel storage in the North Louisiana and South Arkansas districts, having been constructed during the flush production days of other fields in these areas.

Directly after discovery of oil in United Gas Public Service Co. No. 1 Young, section 23-23-16, last July, the Standard Pipe Line Co. of Louisiana began construction of an 8-inch line connecting with its main Oklahoma-Baton Rouge lines at Ida, 8.3 miles to the northeast. This line was completed in record time and all of the allowable of the field was taken through its system until December of last year. At that time Standard Pipe Line Co. announced it would curtail its daily take from the field to 15,000 bbls. The original daily allowable of the discovery well was fixed at 1,750 bbls. by the Minerals Division of the Louisiana State Conservation Department, and has been reduced each month since that time. With the daily take of the lone purchaser cut to 15,000 bbls., operators in the field were at a loss to dispose of their allowable, which at that time had been cut to 700 bbls. daily. Standard Pipe Line Co. recently announced a change in its policy, taking the line capacity, and at this writing is running an average of 25,000 bbls. per day from the field.

In the meantime, three other major companies and one independent have lines running oil from the field or in course of construction. Gulf Pipe Line Co. has a 6-inch line from Potters Station, about 22 miles south of the Rodessa field, connecting with its main trunk line to Port Arthur, Tex. The station is in Texas and the new line is located for a short distance inside the Texas area, paralleling the Louisiana-Texas line until opposite the original Rodessa producing area in Cass County, then cutting into the Caddo Parish area in Louisiana. The Gulf is taking at the present time all of the Cass County production, consisting of four wells. The line from Potters Station connects with a larger trunk line system at Lufkin, Tex. The capacity of the short line into Rodessa is estimated at 15,000 bbls. daily and the company is presently running around 11,500 bbls. daily. Gulf Pipe Line Co. has a network of pipe lines in the old Caddo field area as well as adequate storage facilities on a number of tank farms in North Louisiana and Arkansas.

Magnolia Petroleum Co. has recently constructed 23 miles of 8-inch line into Rodessa with approximate daily capacity of 25,000 bbls. The line connects with its main trunk line to Beaumont at Dixie in Caddo Parish. The main line extends southwest to La-Tex, a few miles west of Bethany where the company maintains a large tank farm. Magnolia is taking around 6,100 bbls. daily from Rodessa through the new line.

Texas Co. Line

Texas Co. has a 6-inch line under construction, which should be finished within 10 days. The daily capacity will be from 15,000 to 20,000 bbls. The line is 15 miles in length, connecting at Oil City with the trunk line to Port Arthur, Tex. Oil City is south of Rodessa in the heart of the old Caddo field, and the new line runs west of the town of Vivian directly into the center of the Rodessa area. East Texas Refining Co. has under construction the longest line into the new field. Its 8-inch welded line to Longview will be about 75 miles in length and have a daily capacity of around 20,000 bbls.

A gathering charge at Rodessa of 7½ cents and a transportation charge of 15 cents to Port Arthur, has been posted by Texas Pipe Line Co., in line with other company tariffs.

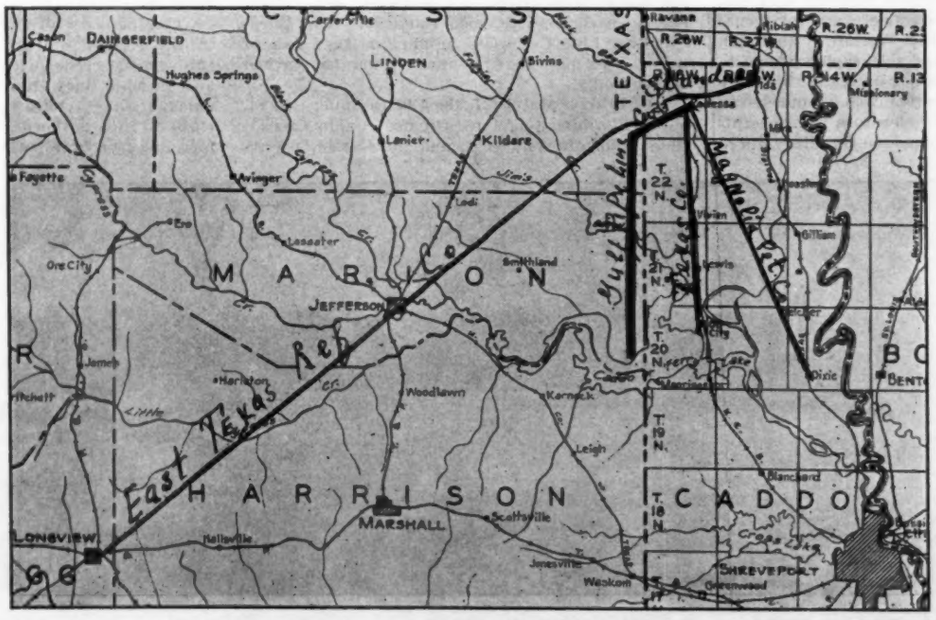
Arkansas-Louisiana Gas Co. (Cities Service) is completing the laying of its 8-inch welded line from Oil City to Rodessa. Shoreline Oil Co. is at work on its 4-inch line from its refinery at Lewis, Caddo Parish, to Rodessa.

Griswold Refining Co., recently constructed in Rodessa a gathering system to a number of wells on the northern edge of the field. In addition to gathering oil for its local refinery, it ships by tankcar to the Cedar Grove Refining Co. in Shreveport, a Griswold unit. Rodessa Refining Co., rebuilt from the old Crystal Refinery in Cedar Grove, also takes oil by tankcar shipments through the Griswold gathering system.

Permission is being sought by the Louisiana, Arkansas & Texas Railroad from the Interstate Commerce Commission for authority to move Rodessa crude to New Orleans at a rate of 5½ cents per hundred, it is reported.

The Rodessa field at this writing has 116 wells connected on daily allowable of 400 bbls. per well or 46,400 bbls. per day for the field. The actual pipe line runs and local refinery take for the past week show an average of 46,275 bbls. per day, including the wells in Cass County, East Texas. Operators in Rodessa as well as purchasers and carriers are cooperating to the fullest extent with the Minerals Division of the State Conservation Department to keep within the prescribed allowable, and there seems to be no cause for worry that it will be exceeded or that any hot oil will be run.

However, the field, which seems destined to grow to much larger proportions, will be amply taken care of in the handling of production with the present setup. The present pipe lines in the field with their network of local lines and storage will be able to take over 200,000 bbls. daily which will probably cover the allowable for that area for some time to come.



Present pipe lines and lines being laid into Rodessa field
(Base map by Walter E. Wylie, Shreveport, La.)

Code Rule Recommended

The national committee of three recently appointed to investigate the possibilities of developing a marketing code has recommended adoption of the provisions of the equipment rule at once.

National Scouts Date

DALLAS, Tex., Mar. 30.—The executive committee of the National Oil Scouts Association, called by Dwight Becker, Amerada Petroleum Corp., Houston, met at the Baker Hotel in Dallas March 28 to discuss plans for the association's convention to be held here May 29, 30 and 31. This will be the first time Oklahoma scouts have participated. Lee Adams, Sinclair Prairie Oil Co., Shawnee, Okla., represented the Oklahoma state group at the meeting of the executive committee.

Others in attendance were Jess Bullard, Shell Petroleum Corp., San Antonio, president; Joe Haygood, Humble Pipe Line Co., Midland, vice president; Howard Boyd, Magnolia Petroleum Co., Dallas, secretary-treasurer; Paul R. Martin, Pure Oil Co., Fort Worth, past president; John Langston, Sun Oil Co., Dallas, past president and secretary; S. A. Germany, Shell Petroleum Corp., Tyler; Ira Jared, Sun Oil Co., Shreveport, La., and Ferg Davis, Atlantic Oil Producing Co., Corpus Christi.

Effect of Flood on Consumption Looms Larger Than Actual Refinery Loss

By R. C. CONINE

PITTSBURGH, Pa., Mar. 30.—Ice, flood and fire have cost western Pennsylvania producers, refiners and marketers at least $3,000,000 this month. In the Pittsburgh district, refiners and marketers had less than 12 hours' warning. At Coraopolis the wall of water struck at midnight driving away the men who had been working for hours steadily to fill tankage for anchorage. The Canfield plant was almost immediately covered by 14 feet of water. The flood rose so rapidly, 12 feet higher than the weather bureau had predicted, it was not possible to get water in all the tanks and some on lower ground floated and connections broke causing loss of some oil. The main storage was found intact; distillation equipment not damaged and no buildings were damaged except for the mud.

H. M. Carruth, secretary of the Canfield company, believes that, while gasoline consumption in the district was at a very low point during the flood, after that undoubtedly consumption will be affected but not seriously.

At Freedom the flood swept 8 to 10 feet above the high banks, inundating the entire plant of the Freedom Oil Works Co., but the greatest loss was in being shut down rather than the cost of cleaning up, drying out, repairing and replacing equipment, Earle M. Craig, president, said. He is of opinion sale of gasoline and lubricating oils will be hampered for months because of the financial losses suffered by automobile owners. Some small plants, consumers of lubricating oils, may never start up operations. Whether these losses will be offset by greater consumption on the part of other manufacturers whose products are in demand for reconstruction is difficult to determine.

On Neville Island, in the Ohio River, 2 inches of concrete dike saved the Gulf plant from inundation. Nearby, on the Pittsburgh mainland, black billows of smoke were to mark the destruction of the Waverly Oil Works plant next day.

Official estimates place the extent of flood damage in the Pittsburgh district between $150,000,000 and $200,000,000. Peoples Natural Gas Co., with a gas engine driven electric generator secure from the flood, enabled the Western Union and Southern Group Pipe Lines' telegraph systems to continue operation. It was not until the third day that limited telephone service was resumed. In the Gulf Building only two elevators were operating. In the Chamber of Commerce Building, where South Penn Oil Co. offices are located, the third day found candles still the only source of light, and there was no elevator service.

Waverly Oil Works suffered the heaviest loss among refiners in the Pittsburgh district. The office building, part of the filter house, and, possibly, the new fractionating tower and old Cross unit, alone were spared by the furious blaze which left the remainder of the plant a heap of ruins.

The grease making department, housed in a six-story, "fireproof" building, with 21,000 square feet of floor space, "folded up like an accordion," an eyewitness said. In this building were 17 square storage tanks of 9,000 gallons capacity each, all equipped with steam coils. There were also eight grease kettles with a total capacity of 80,000 pounds, and all other equipment was of the latest design.

Typical of the oil industry, the president of Waverly said, "We will be running our own plant again some time in July. We are already making greases at Freedom and are filling orders as promptly as facilities and means of transportation permit. Our losses will probably run between $350,000 and $400,000, and to this must be added the additional losses growing out of the operating handicaps we face for the next few months. We are still in business and orders have been pouring in in a way that largely compensates us for our troubles."

On Neville Island 42 employes of the Gulf Oil Corp. refinery were marooned by the flood. When Charles Buerger, vice president, was told the flood waters reached their peak, 2 inches below the top of the cement dike protecting the plant, he answered, "That's what I call good engineering." At Cincinnati, Gulf lost bulk plant storage to the extent of about $1,000.

American Oil Co., Republic and Richfield lost at least 500,000 gallons of gasoline and several large storage tanks. Smaller losses were reported by nearly all of the other companies. American Oil Co.'s $200,000 wharf was badly battered, as were the loading facilities of other refiners. An indication of how seriously transportation was disarranged is given in announcement that the Pennsylvania Railroad will spend $5,000,000 to return the system to normal condition.

Pipe line losses were comparatively small. About 600 feet of 6-inch pipe were washed away at South Heights. An undetermined amount of 4-inch and 3-inch line is lost in the river near the Freedom plant. No other losses are reported. However, with none of the refineries operating no test has been made on a number of lines crossing the various rivers. At Marietta, Ohio, Buckeye reported lines in good condition. The Buckeye Pipe Line Co. office building, with 4 feet of water covering the first floor, could be reached by boat only.

On Friday, March 27, the Elk Refining Co., St. Marys Refining Co., Pure Oil Co. (Cabin Creek), Ohio Valley Refining Co., and the Carbon & Carbide Refining Co., in the flood areas of Ohio and West Virginia, had not been affected by water, except that distributing facilities were disturbed.

Oil company officials report gasoline and motor oil demand unaffected by flood conditions. Highways have been left badly in need of repair by ice and snow, but motorists, long restrained from travel by weather, are making up for lost time. There has been no price advance at the service stations in Allegheny County.

Ample supply of motor fuel is not lacking. Gasoline goes into the district by tankcar, tankwagon and pipe line. Sometime this week it is expected all of the refineries with the exception of Waverly will be on stream, unless unexpected rains bring a new flood. The oil companies have won deserved commendation because of their humanitarian activity. All of the refiners and marketers cleaned out tank wagons and used them for bringing drinking water into the city.

Awaiting Inventory

NEW YORK, Mar. 30.—Eastern oil marketing, refining and transportation companies have not yet had time to take complete inventory of the heavy damage to their equipment due to the floods.

Bulk plant refined oil stocks and storage equipment suffered the heaviest losses as waters submerged many plants and carried off numerous tanks. In one large city a single company reported the loss of more than 200,000 gallons of fuel oil and a number of tanks which floated down river, and were later sunk to avoid fire danger. One major company reported damage to equipment in 18 different cities in seven states but the total was small in proportion to the large investment throughout the eastern territory.

The large refinery of the Standard Oil Co. (New Jersey) at Parkersburg, W. Va., was relatively free from danger, distillation equipment fortunately having been above the flood crest, although adjacent storage tanks on lower ground were inundated.

The intricate oil and gasoline pipe line system in the eastern states is reported to have come through the crisis in exceptionally good condition and all main lines are now in operation. The chief damage was to telegraph lines. A few pumping stations and gathering lines were affected, but pipe line men here state the lines have served admirably in the emergency which did so much damage to other transportation agencies.

Tank truck equipment in most districts was moved out in anticipation of floods but of course a number were caught where the waters rose higher than anticipated.

Marketing companies are worried more about the possible effect of the floods on gasoline consumption than about their direct property losses. An enormous number of families in the East have been impoverished by the floods or have lost their motor cars or trucks.

At Springfield, Mass., the Gilbert & Barker Manufacturing Company's plant maintained uninterrupted deliveries and service by aid of motor boats, row boats and rafts

Solvex Incorporates Novel Cracking Furnace in East Texas Refinery

By W. T. ZIEGENHAIN

Inaugurating the use of a furnace of unusual construction Solvex Refineries, Inc., recently completed a 37-day run on its new 1,500-bbl. cracking unit in its Gladewater, Tex., refinery and because of the favorable results, the company expects to establish a much longer period as a normal operating cycle on future runs.

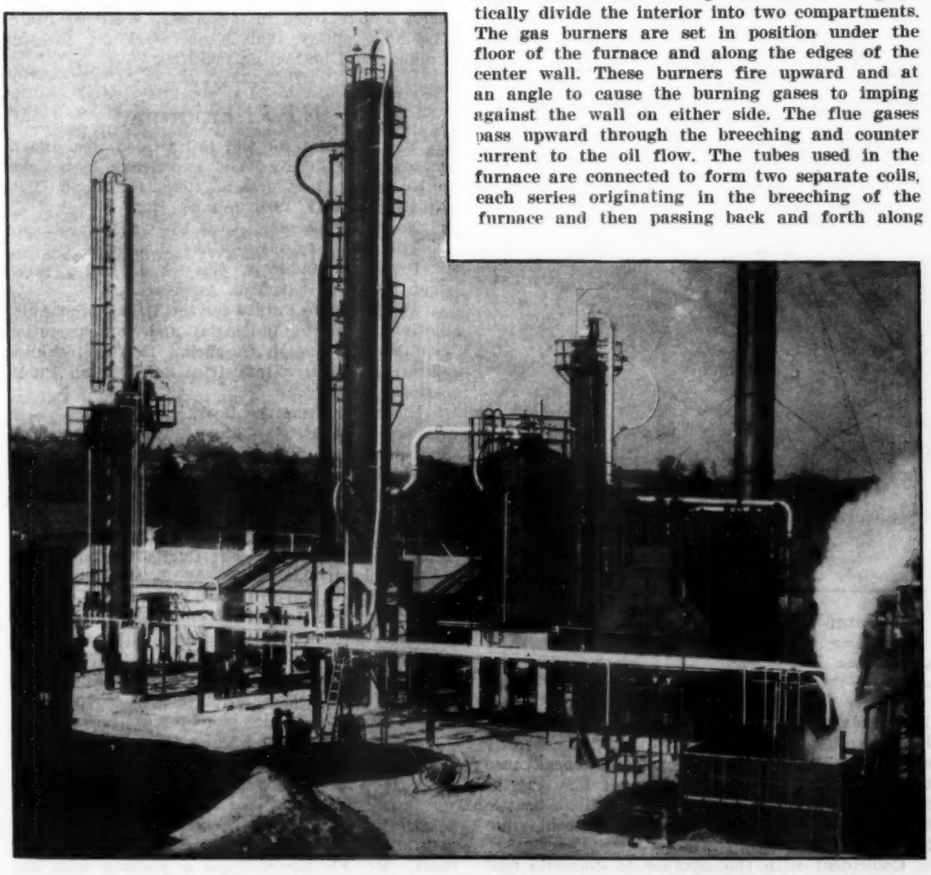
The new furnace is described as an "up-flow", double, side-fired heater, based upon the design of the new "Equiflux" furnace developed by the Universal Oil Products Co. The heater was designed to transfer 24,000,000 B.t.u., but in operation has indicated it possesses comfortable excess capacity. The new furnace has been adapted to the conventional Dubbs cracking operation and has consistently handled an average of 1,500 bbls. of 25 to 27 gravity topped crude daily during two runs.

Before discussing the furnace further, it should also be pointed out that the new Solvex unit is unique in that it incorporates the latest Burrell-Mase type of stabilizing unit with the Dubbs operation so that absorption and fractionation of the recovery gasoline are carried out simultaneously under the same operating pressure as that maintained in the Dubbs equipment. No compressors are needed and only two pumps are employed in the operation of the stabilizer. For cooling, an open type condenser is supplied, water being run to the condenser by gravity from a reservoir.

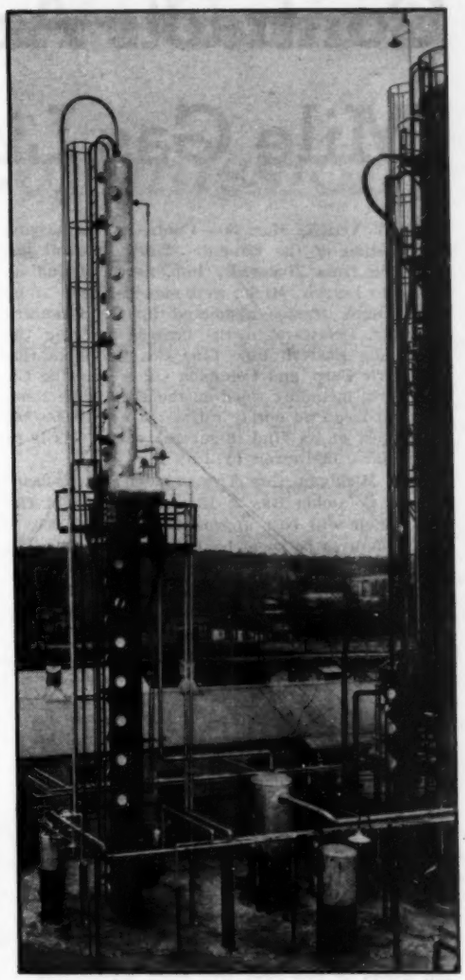
In the routine operation of the new plant, East Texas topped crude of 25-27 gravity has served as the charging stock to date. From it, 400 endpoint 62 to 63 gravity gasoline has been recovered, having an octane number of 67 to 68 and a Reid vapor pressure under 10 pounds. Under this program of operation, the unit produces a 7 to 8 gravity fuel oil residuum containing not over one-half per cent b.s.

Furnace Design

In describing the new furnace some idea of the extent to which conventionality has been dispensed with may be seen in the accompanying picture. In the picture may be seen the supports on which the walls, tubes breeching and the combustion chamber are suspended. Inside the furnace a wall has been built running from the front to back and through the middle to practically divide the interior into two compartments. The gas burners are set in position under the floor of the furnace and along the edges of the center wall. These burners fire upward and at an angle to cause the burning gases to imping against the wall on either side. The flue gases pass upward through the breeching and counter current to the oil flow. The tubes used in the furnace are connected to form two separate coils, each series originating in the breeching of the furnace and then passing back and forth along the sides of the furnace wall, one series passing down one side and the other on the opposite side. In this manner, it is possible to charge two types of charging stock simultaneously and maintain cracking conditions in the respective compartment best suited to the particular stock or the same charging stock may be charged through both sides and the same conditions maintained in both compartments. At the present time the charging stock is split.



General view of the Solvex Refineries, Inc., n ew cracking unit. In the right background is shown the special furnace and then reading to the left are shown the reaction chamber, flash chamber, fractionating column and combination absorber-stabilizer equipment



Close-up view of vapor absorption and stabilization equipment showing location of naphtha stripper in the right foreground

While not operated as a part of the cracking unit, Solvex has recently added some auxiliary equipment for the refractionation of the straight-run East Texas gasoline taken from the crude. This equipment permits blending a portion of the lighter fractions of the crude back with the cracked gasoline. The resulting gasoline has specifications which approximate the following.

TYPICAL FINISHED CRACKED GASOLINE

Gravity	62-64 A.P.I.
I.P.	80-85° F.
10 per cent	120-124° F.
Recovery	97-98%
Endpoint	392-395° F.
R.V.P.	9-10 pounds

In operating the new unit, Solvex is licensed under patents held by the Universal Oil Products Co. covering the furnace, reaction chamber, flash chamber and the conventional Dubbs cracking cycle. The inclusion of the special combination absorption and fractionating tower, stabilizer and condensing equipment called for special design and engineering work on the part of the Burrell-Mase Engineering Co. The construction of the unit was handled as a turn key job by the Frick-Reid Supply Corp., Mattison-Wallack & Co. doing the actual construction work.

Solvex Refineries, Inc., is managered by I. A. Anson and M. L. Freese of the Bell Oil & Gas Co., which company handles the sales of all products

Contracts Are Let on 230 Mile Gas Line to Detroit

NEW YORK, Mar. 30.—Contracts authorizing construction of the 230-mile 22-inch natural gas pipe line from Zionsville, Ind., north of Indianapolis, to Detroit, Mich., were signed March 17 by Gano Dunn, trustee appointed by the Chancery Court of Delaware in the decree involving the Panhandle Eastern Pipe Line Co., Columbia Gas & Electric Corp. and Columbia Oil & Gasoline Co. The work, including work on the Panhandle Eastern, will mean an outlay estimated at $16,000,000, the largest of its kind in several years. Gas is to be available in Detroit by July 1.

The Michigan Gas Transmission Co., subsidiary of Columbia Gas & Electric, will build the line, which will cost approximately $8,000,000, a like amount to be spent by Panhandle Eastern on its own lines within the next two years.

The line to Detroit, which will tie into the Panhandle Eastern north of Indianapolis, will be built in three sections, northern, central and southern.

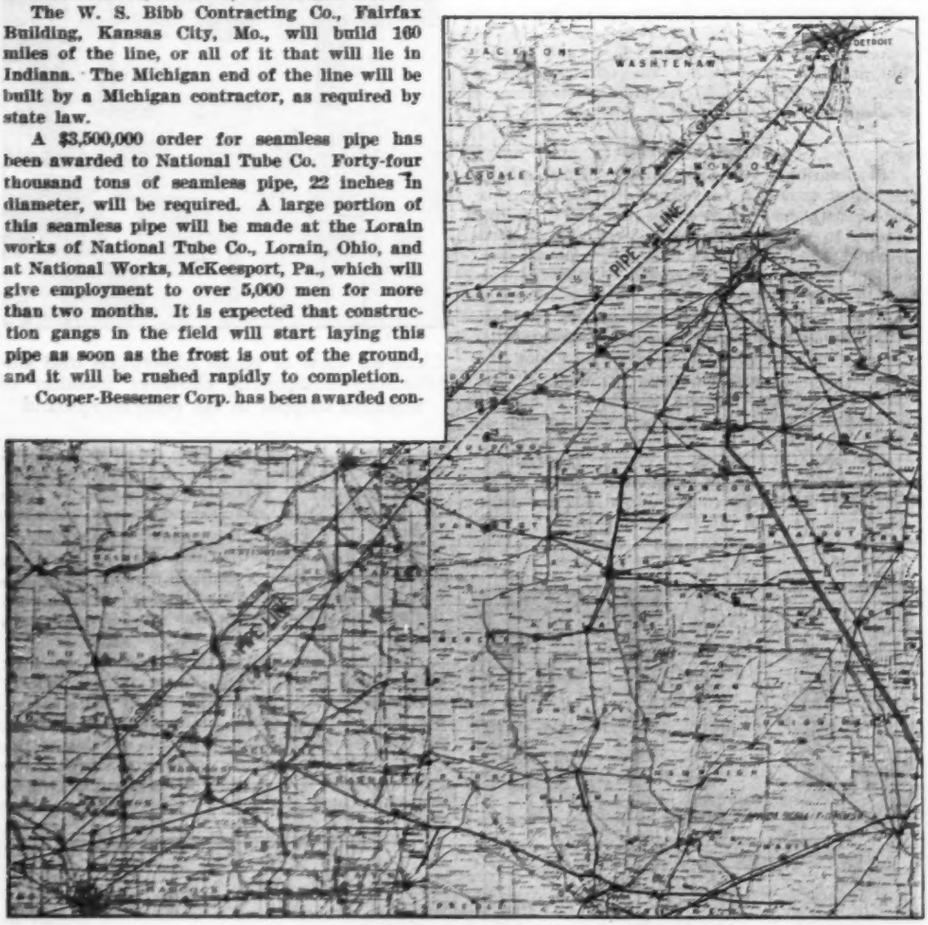
The W. S. Bibb Contracting Co., Fairfax Building, Kansas City, Mo., will build 160 miles of the line, or all of it that will lie in Indiana. The Michigan end of the line will be built by a Michigan contractor, as required by state law.

A $3,500,000 order for seamless pipe has been awarded to National Tube Co. Forty-four thousand tons of seamless pipe, 22 inches in diameter, will be required. A large portion of this seamless pipe will be made at the Lorain works of National Tube Co., Lorain, Ohio, and at National Works, McKeesport, Pa., which will give employment to over 5,000 men for more than two months. It is expected that construction gangs in the field will start laying this pipe as soon as the frost is out of the ground, and it will be rushed rapidly to completion.

Cooper-Bessemer Corp. has been awarded contract for 14 twin-tandem gas-engine-driven compressor units, the largest order since 1930 for equipment of this kind. It calls for twelve 1,300-horsepower units and two 1,000-horsepower units.

The Panhandle line, one of the longest natural gas lines in the world, was built in 1930 and equipped with Cooper-Bessemer engines and compressors. The present system extends a distance of 1,350 miles from the Texas Panhandle eastward. This great natural gas carrier will supply the new line to be laid by the Michigan Gas Transmission Corp. from Indiana to Detroit. Work on the first of the 1,300-horsepower compressor units is already under way at the Cooper-Bessemer plant, Mount Vernon, Ohio, where the major part of the machining and assembly will be done.

Worthington Pump & Machinery Co. was given the contract for eight 24x36 twin-tandem, gas-engine compressor units, of 1,300 horsepower each.



Showing route of Michigan Gas Transmission line from north of Indianapolis to Detroit

New Fuel Oil Policy

SAN FRANCISCO, Calif., Mar. 30.—The Standard Oil Co. of California's announcement of a new policy in its fuel oil quotations will have a tendency to strengthen the fuel oil market on the West Coast. The announcement follows:

Effective March 25, Standard Oil Co. of California announced an advance of 10 cents per barrel in the price of its domestic grade of fuel oil, a product generally used for hotel and apartment house heating and industries requiring a special low viscosity fuel oil. This product is generally sold for delivery by tank wagon and the advance makes the new tank wagon price at Los Angeles $1.17, San Francisco $1.22, Portland $1.40, Seattle $1.475, the last price including a 10½-cent state fuel oil tax.

Coincident with the advance in domestic fuel oil, the company also announces a new policy concerning fuel oil contracts. In the future all contracts for various grades of Standard fuel oils and diesel oil for ship's bunkers will be written on the basis of the company's current posted price, with a provision that in the event of an advance in prices the advance to buyers then under contract will not be greater than 25 cents per barrel.

Trend in Refining Industry Is Reviewed at Tulsa A.P.I.

"Some refining trends" was the subject of an interesting lecture given by Emby Kaye, vice president of manufacturing of the Skelly Oil Co., at the March meeting of the Tulsa chapter of the American Petroleum Institute held in the Mayo Hotel Wednesday night, March 25. Ray E. Miller, sales manager of Hanlon Gasoline Co., presided at the meeting.

In his discussion Mr. Kaye traced the progress of the refining industry from its earliest forms to the modern combination cracking and skimming units now in use today. Changes in the equipment required for processing the oils were pointed out and the economies of the refining business were discussed from the standpoint of the variations in the types of crude oils charged to stills. Treating of petroleum distillates was briefly covered and the improvement in octane rating resulting from treating, due to the sulfur content of the finished product being lowered, was pointed out. The trend toward more volatile gasolines and steps being taken by automotive manufacturers to utilize these motor fuels of higher vapor pressure were discussed. He stated that the motor industry is now coming to recognize the fact that it should deal with a more volatile gasoline resembling the motor fuel of 15 years ago.

Mr. Kaye also spoke of the solvent processes of refining lubricating oils and their resulting improved lubricating properties, such as higher viscosity indexes, lower sludging and carbon forming tendencies, and higher resistance to oxidation.

Polymerization of refinery cracked gases and also the uses of propane, butane and other hydrocarbon gases for industrial purposes were discussed. Experiences of various bus and truck lines utilizing butane and propane as a fuel were cited. Kaye pointed out that the development of butane sales was retarded in the Middle West because of the huge outlay that is necessary for pressure tankage and marketing facilities.

N.P.A. Program

The program for the thirty-third semi-annual meeting of the National Petroleum Association to be held at the Cleveland Hotel, Cleveland, Ohio, April 16 and 17, 1936, follows:

Thursday morning, April 16—Group meetings.

Thursday afternoon—General session.

President's address, Charles L. Suhr, president, National Petroleum Association.

"What Is the Future for the High Speed Automotive Diesel in Industrial and Transportation Equipment?" Joseph Geschelin, Detroit technical editor, Automotive Industries and Chilton Publications.

Discussion from the floor.

"Social Security"—John G. Winant, chairman, Social Security Board.

Discussion from the floor.

Thursday evening—Fellowship supper at the Hermit Club.

Friday morning, April 17—"Business by the Gallon"—Arthur Gow, The Curtis Publishing Co.

"Petroleum Marketing"—W. T. Holliday, president, Standard Oil Co. of Ohio.

"Progress in Aviation"—John H. Geisse, director Aeronautics Development Section U. S. Bureau of Air Commerce.

"Federal Finances and Taxation"—Elsworth C. Alvord, formerly assistant legislative counsel and special assistant to the secretary of the treasury.

OBITUARY

D. P. FLEEGER, widely known Kansas oil man, died in Wichita on March 27, of a heart ailment. Mr. Fleeger resigned a position with the old Mid-Kansas Oil & Gas Co. to go into business for himself and was very active in the Kansas field for years.

Congressional Committee Is Curious About Alcohol Blend Commission

By HUGH D. MALLON

WASHINGTON, D. C., Mar. 30.—Blending of alcohol and gasoline is once more coming to the fore in congressional circles following hearings this week on the proposal of Representative Lea of California to set up a "Fuel Research Commission" to study the possibility of using renewable sources for manufacture of motor fuel.

The Research Commission would be used for furthering the blending of alcohol and gasoline, witnesses from the Bureau of Standards maintaining such blends would, or might be superior to present gasoline, while representatives of the Farm Bureau Federation claimed use of alcohol produced from agricultural products was the only solution for relief of the farmer.

All witnesses admitted the proposed blending would result in an increase in price. Bureau of Standards officials showed pronounced leanings toward the suggestion, but Bureau of Mines officials were only luke-warm.

Bureau of Mines Declines

Director John Finch of the Bureau of Mines, requested that his department be withdrawn from membership on the Fuel Research Commission to be set up under the bill, and stated the Director of the Geological Survey felt the same way. As both divisions of the government had been set up by law to study mineral resources they had no place in an agency setting out to study agricultural processes to be used as a substitute for the minerals within their province.

The subcommittee considering the hearings is composed of Representative Lea, California, chairman; Representatives Cole, Maryland; Eicher, Iowa; Peyser, New York; Democrats; and Cooper, Ohio, and Merritt, of Connecticut, Republicans.

Both Representative Cole and Representative Merritt, who were the only members of the subcommittee present at the hearings besides Chairman Lea, showed a decided antipathy to the enactment, or even consideration of the measure. Representative Merritt made pertinent queries as to the efficiency as well as the cost of substituting blended motor fuel.

Representative Cole sought to find the authorship of the proposed law, which he believes was drawn by the Department of Agriculture, in conjunction with the Chemical Foundation and the Association of Manufacturing Chemists. All witnesses claimed not to have any knowledge as to the ancestry of the proposal, but Representative Lea said he would take full responsibility with the statement that it was supported by farm organizations, as well as "others."

Doctor Finch stated that new production, new recovery methods, and advances in the art of refining crude will carry our present oil supply, plus new discoveries, through a much longer period than 15 years. When petroleum resources reach a stage of shortage, he pointed out, there is an ample supply of coal deposits and oil shale deposits. Present price of producing motor fuel and oil products from this source is not quite comparable to production prices of petroleum products, but he is of the opinion that when the time comes they can be produced almost at the same cost as the present motor fuel and oil products.

The testimony of the government officials was not official, being merely personal.

In answer to Mr. Cole, Director Finch replied that the bill was not from the Bureau of Mines, and no one at the bureau had either seen or heard of it until after it was written.

Chairman Lea said at least 22 foreign countries already had such provisions in their laws and were successful in getting rid of their agricultural surpluses, and conserving their motor fuel resources.

Mr. Cole said oil company laboratories have for years been working to find substitutes for petroleum should our petroleum resources ever run out, and the results should remove the reason for establishing the proposed commission for a five year term as contemplated.

H. T. Dickinson, chief of the division of heat and light, National Bureau of Standards, attempted to draw analogy from present adjustments in treating and refining gasoline to meet seasonal variations to adjustments which would be made necessary by the use of alcohol in gasoline. Fuel today, he said, is much dissimilar to the motor fuel of 10 years ago, and there would not be any greater difference 10 years hence in the motor fuel if blended with alcohol. While admitting it was a very technical problem to adjust the proposed blend to the requirements of the present day motor he said the oil industry is today spending over $10,000,000 a year in adjusting gasoline to meet various requirements brought about by changes in motor design and seasonal variations in weather.

The use of an alcoholic blend with gasoline is not an economic possibility in any part of the country at present, Mr. Dickinson stated, following the war, for approximately two years, it was economically sound and was resorted to to some extent. The government should be prepared for a shortage in gasoline by resorting to this research commission at this time, he believed.

Foundation to Finance Alcohol Plant

Arrangements were completed March 7, whereby the Chemical Foundation, Inc., will give financial assistance to the Bailor Manufacturing Co., Atchison, Kansas, for working capital and for the installation of equipment for the manufacture of anhydrous ethyl alcohol, according to Chemical and Metallurgical Engineering. This, it is said, is in line with the policy of the Chemical Foundation to develop new outlets for domestic agricultural products. The alcohol will be made by a process for which the Foundation controls patents and it will be used, mixed with gasoline, to produce automotive power. Preliminary plans call for a daily output of 10,000 gallons of alcohol with a daily consumption of 4,000 bushels of corn.

Farmer Attitude

Chester Gray, Washington representative of the American Farm Bureau Federation, brought out clearly the backing of the bill with his statement that the farmers need other outlets. Farmers who can find an inedible use for agricultural products should be allowed a market, he said, pointing out the farm organizations do not approach the question of whether it is blending gasoline and alcohol or not, but from the point of broadening agricultural markets.

No opponents of the proposal have yet been heard, and present indications are they will not be unless there is a last minute change in the procedure. Following the testimony of Mr. Gray the committee adjourned until March 31 to hear Fred Brenckmann, of the Grange, in support of the bill.

It is probable no action will be taken on this measure at this session, but the proposal is gaining ground in congress and will in the near future be a source of danger to the oil industry.

Fuel Research Commission

The bill provides that the commission shall be only of a temporary nature, being discontinued by not later than December 31, 1941, a period of five years. A fund of $1,000,000 is proposed to be placed at the disposal of the commission as the foundation for a revolving fund to be augmented by any sums received from sales of the manufactured products. It stipulates all operations conducted by the commission are to be experimental and demonstrational only. Upon the final liquidation on or before December 31, 1941, all the property and records of the commission would be transferred to the procurement division of the treasury department for disposition.

The commission would be composed of the director of the U. S. Geological Survey and the director of the Bureau of Mines, department of the interior; the director of the Bureau of Standards, department of commerce; the director of the Bureau of Plant Industry and the director of the Bureau of Chemistry and Soils, department of agriculture; all to serve ex-officio without additional compensation.

It shall be the duty of the commission to investigate, develop and promote renewable sources of supply for fuel adapted to the use of internal-combustion engines; to improve fuels produced from such sources and to promote their use in interstate and foreign commerce; and to develop beneficial uses for the by-products resulting from the production of such fuel.

They may construct, purchase or lease, in the name of the United States, and operate a demonstration plant or plants at such locations as the commission shall deem advisable, purchase or lease lands necessary, purchase or procure materials for such operations, lease lands for producing such materials and purchase or lease tools, machinery and other equipment necessary for such purpose.

Sales of any manufactured products may be made by the commission, but so far as possible such sales shall be only to branches, departments, bureaus, offices, establishments or agencies of the government for official use.

Water Pollution Bill Opposed by Oil Representatives

WASHINGTON, D. C., Mar. 31.—The oil industry was heard by a congressional committee in regard to the pending bill for prevention of water pollution, through representatives of the Mid-Continent Oil and Gas Association, Independent Petroleum Association, National Petroleum Association and Western Petroleum Refiners Association. A consolidated statement opposing the bill said:

"As an illustration of the salt water problem we cite the great Smackover field in Arkansas, which has produced over 337,000,000 bbls. of oil. This field produced salt water in enormous quantities. If the industry had not been able to dispose of this salt water through natural drainage, this field could not have been operated."

Any regulation or order that would prohibit discharge to drainage would prevent recovery of a "very substantial part" of crude reserves.

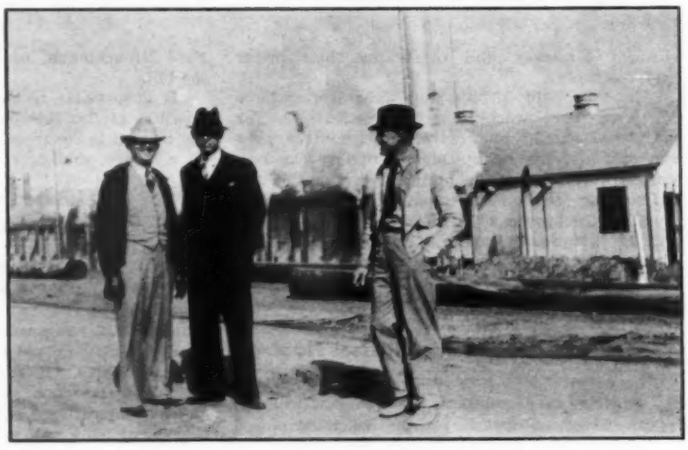
Natural Gasoline

Expansion in East Texas

DALLAS, Tex., Mar. 30.—Parade Gasoline Co., successor to Excelsior Refining Co., builder of one of the first natural gasoline plants in the East Texas field, is extending its gathering system with 30 miles of line to add approximately 300 wells to its connections and making additions to its plant equipment to provide for extraction of natural gasoline and butane from a total of approximately 15,000,000 feet of gas per day. The plant, on the Ward Oil Co.-Giles lease in the Josefa Pru Survey, near Turnertown, Tex., on the completion of the present construction program will have a combined natural gasoline and butane potential capacity of 100,000 gallons per day.

The Parade gasoline plant draws its gas supply from a large part of the original production area of the East Texas field. Starting as a pioneering venture, Excelsior Refining Co., headed by John B. Adkins, after a period of successful operation under difficult conditions, combined with the natural gasoline interests of H. L. Hunt, Inc., to form Parade Gasoline Co.

Additions to the gathering system include a 20-inch header and other large diameter lines. The gathering and residue systems are of all-welded construction. Pipe was purchased from Wyatt Sheet Metal & Boiler Works and Youngstown Sheet & Tube Co. A major part of other materials was secured from Continental Supply Co. All welding materials were purchased from Air Reduction Sales Co., which company furnished a member of its applied engineering department to assist in supervision of welding on the job. The lines are being laid under contract by J. E. ("Papa") Crockett, inventor of the "grasshopper" and other pipe line construction tools, who has been well known in the Louisiana and Texas fields for a number of years.

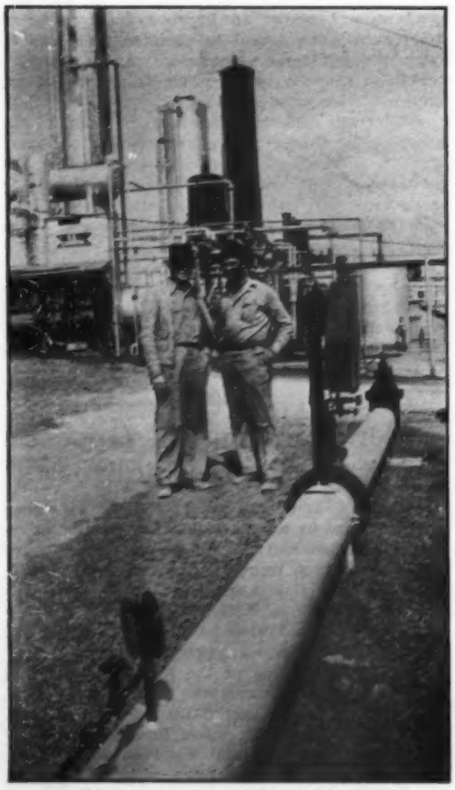


West side of main engine room, Parade Gasoline Co. plant, Turnertown, Tex. E. L. Glover, general superintendent; H. Frederick, and M. Rudy

The work in the plant and in the field was completed without a serious accident.

Additions to the plant include one 250-horsepower Clark super two-cycle compressor, processing equipment to increase natural gasoline capacity, butane extraction equipment, and with increased auxiliary equipment provision for extended residue service.

Offices of Parade Gasoline Co., Inc., are in the Commercial National Bank Building, Shreveport, La. Officers of the company are: John B. Atkins, president; D. P. Hamilton and H. L. Hunt, vice presidents. Field and plant operations are under E. L. Clover, superintendent. Roy Lee is secretary and treasurer.



Plant of Parade Gasoline Co., Turnertown, Tex. Morris Rudy, construction superintendent, and Barney Harbison, master mechanic

Natural Gasoline Association

The next annual convention of the Natural Gasoline Association of America promises to attract many plant operators and field men because of the special efforts being made by the association to gain their attention and for their entertainment. One of the features of the program which is expected to attract many men to the convention and at the same time prove exceptionally helpful to all, will be the presentation of "Operating Kinks" of "Operating Ideas." Based upon the opinion of impartial judges, who will decide the awards, eight cash prizes totaling $125 will be given to the first and second winners in each of four classes of "Operating Kinks" presented.

While the remainder of the formal program is not ready for announcement, the introduction of this interesting innovation is stirring considerable interest among field and plant men generally. "Convention programs of the immediate past have been devoted almost entirely to the highly technical or marketing phases of the natural gasoline business," according to T. R. Goebel, Skelly Oil Co., president of the association. "This year, however, we are making a special effort to give the field operators, both plant and laboratory, the place in our discussions which they so richly deserve."

The "Operating Kinks" session will be an informal round table discussion at which the field man may present his own ideas for improving or simplifying any operation connected with the manufacture of natural gasoline. It is to be an opportunity for public expression of the many valuable ideas developed by the men on the operating end of the industry. These ideas can be exchanged, criticized and discussed at the session and prizes will be awarded by a committee of gasoline plant operators for the two most outstanding "Operating Kinks" presented in each of the four classifications into which the competition is divided. The first and second prizes in each of four classifications will be $15 and $10 respectively and a grand prize of $25 will be awarded for the most practical and valuable idea of all classes. F. E. Fisher, plant superintendent, Skelly Oil Co., Skellytown, Tex., will be chairman of this session.

The convention program committee consisting of George P. Bunn, Phillips Petroleum Co., Bartlesville, chairman; R. E. Baker, Shell Petroleum Corp., Tulsa; W. F. Fulton, United Gas Public Service Co., Houston, Tex.; R. D. Gibbs, Union Oil Co. of California, Los Angeles, Calif.; W. B. Moran, J. E. Crosbie, Inc., Tulsa, and J. W. Vaiden, Skelly Oil Co., Tulsa, has announced the following rules and regulations for the submission and presentation of operating kink ideas:

Rules in Presenting Operating Ideas

1. Any employe of a natural gasoline manufacturer may submit one or more "operating kink" ideas.

2. Permission of your employer must be secured before any idea is submitted.

3. Each idea must be submitted in writing and three copies of each must be presented in the form designated on the "operating kink" blanks which may be secured from the Natural Gasoline Association of America, 819 Wright Building, Tulsa.

4. One clear drawing or distinct photograph may be submitted with each kink and wherever possible the association will make slides therefrom.

5. Five minutes' time will be allotted to an employe, at the round table discussion, for the explanation of each of his kinks.

6. The originator of the kink, although urged to do so, need not be present to explain his idea. Any employe of a natural gasoline manufacturer may explain the idea of any other employe of the same concern.

7. Prize awards are to be made by a committee of gasoline plant operators and their decisions will be final.

8. All "operating kink" entires must be in the N.G.A.A. offices by May 10, 1936, in order that the judges may have ample time to study and classify the entries before the meeting date.

9. Any "operating kink" entry may be made within the following classifications:

(A) Operation or maintenance of engines; compressors; pumps; turbines; electric motors; electric generators; or boilers.

(B) Metering or other volumetric measuring; temperature controlling, pressure controlling; volume controlling, liquid level controlling; laboratory equipping or operating methods.

(C) Gasoline or oil distillation; fractionation; gasoline absorption, condensation or cooling, gasoline or gas treating.

(D) Field pipe line and other field operation and maintenance; gasoline storing; gasoline loading; special tools, labor saving or safety devices; accounting or record keeping methods; or any other phase of natural gasoline manufacture not covered within the preceding classifications.

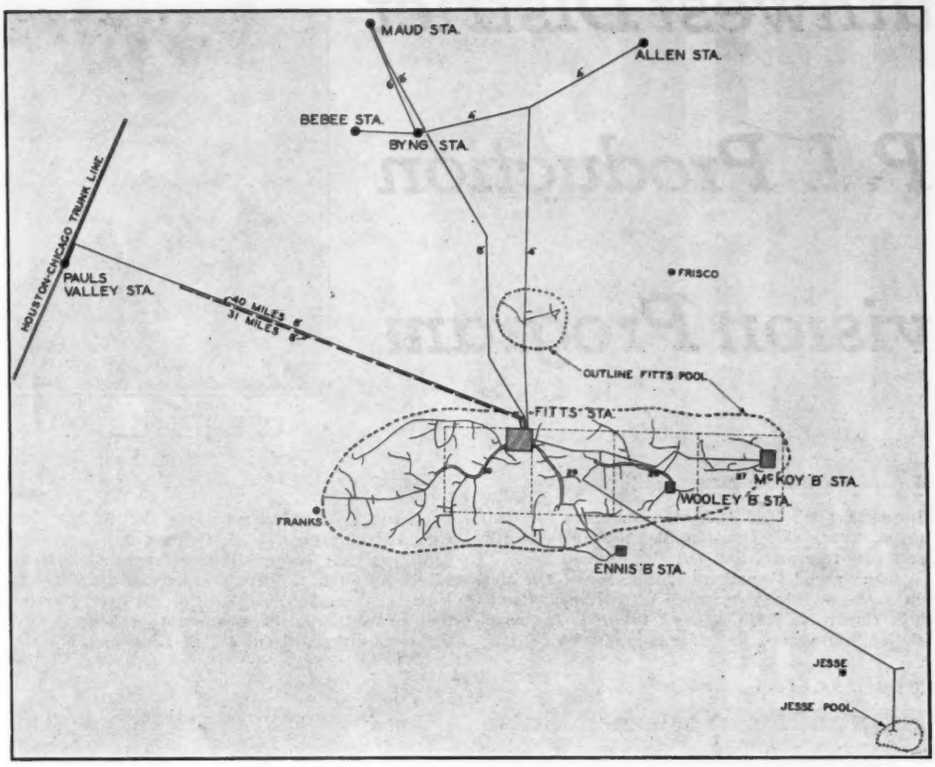
State Wins Carbon Suit

AUSTIN, Tex., Mar. 31.—Decision of a three-judge federal court which heard the case at Houston was filed here Tuesday upholding the state in the suits of the F. C. Henderson Co. and Portland Gasoline Co., sustaining the state gas wastage statute prohibiting the use of sweet gas in carbon black manufacture.

New Phillips Booster Station

The Phillips Petroleum Co. is moving 28 Clark compressors into the northern extension of the Oklahoma City field and will utilize these in a new gas booster station.

Pipe Line Activity



Stanolind Pipe Line Co. transportation system in vicinity of Fitts field, Pontotoc County.

New Stanolind Fitts Line

The Stanolind Pipe Line Co. has let contract for the laying of about 31 miles of 8-inch welded pipe line to loop the existing line between the main pump station in Fitts field, Pontotoc County, Oklahoma, to a point near Pauls Valley. The main station is located in section 30-2-7e and from this station two 8-inch lines now lead, one almost due north through the Seminole area lines to the main line at Tribbey and Payson, Okla., while the other runs west to the main line near Pauls Valley.

The present capacity of pipe lines owned by the Stanolind Pipe Line Co. out of Fitts field is about 40,000 bbls. daily and this new loop will add approximately 10,000 bbls. daily. The work of opening the ditch, welding and laying the line and covering the pipe has been let to O. C. Whitaker, Inc., Burkburnett, Tex., and the pipe to be used has been reconditioned from other parts of the system.

To serve its customers in the eastern portion of Fitts field, the Stanolind Pipe Line Co. has moved its field station, known as McKoy B station to section 27-2-7e, about 4 miles east of the main station. The oil from the various leases served by this system will gravitate to the McKoy B station and be pumped from there through a combined 6- and 8-inch line. This line is run at low pressures at present and the pressure can be increased to permit a large increase in oil handled as occasion demands.

In addition to the McKoy B station there is another field gathering plant about 1¾ miles southeast of the main pump station also equipped with pumps suitable for forcing the oil to the main station through 4-inch line or if needed a section of 6-inch line can be used to deliver the oil through the end nearest the main station.

The April allowable for Fitts field has been placed at 48,000 bbls. daily from the Upper Simpson formations with 1,200 bbls. additional from the Wilcox sand wells and about 1,500 bbls. daily from 24 wells producing from various other formations in this field. This makes a total daily output of 50,700 bbls. from Fitts field for April.

In addition to the new lines the pump station at Tribbey, Okla., is being increased by the installation of a 440-horsepower diesel engine and slow-speed horizontal pump reclaimed from the old station at Deshler, Neb., on the Wyoming pipe line built by the Sinclair Pipe Line Co. and acquired by Stanolind Pipe Line Co.

New Hawley Outlet

FORT WORTH, Tex., Mar. 30. — Thomas D. Humphrey, producer in the Hawley area of Jones County, is laying 3 miles of 4-inch pipe line from his Hawley lease north of Abilene and near the town of Hawley, to connect with a tankcar rack on the Wichita Valley railway, making the third outlet for the field, the other two being small lines to local refineries nearby.

Ward County Extension

FORT WORTH, Tex., Mar. 30.—Wickett Pipe Line Co. has been extending its gathering lines in southern Ward County, laying 5 miles of line from producing leases south of the Pecos River in Pecos County to connect with the company's lines north of the river in Ward County. H. V. Carr, engineer, is in charge of the construction work.

Natural Gas

San Antonio Rates

SAN ANTONIO, Tex., Mar. 30.—Texas Railroad Commission hearings on the gate rate price of gas paid by San Antonio Public Service Co. may be held in San Antonio instead of Austin.

The hearing was asked by San Antonio Public Service Co., which claims it cannot reduce gas rates to consumers until it can obtain a reduction on the rate paid at the city gate to United Gas Co., which pipes natural gas here. The city, which is campaigning for lower utility rates, has intervened and will be represented at the hearing. Both the city and railroad commission have made an appraisal of pipe line facilities of United Gas Co. as they affect the San Antonio gate rate.

Hearings on Gas Regulation

WASHINGTON, D. C., Mar. 30.—Hearings on the natural gas regulation bill introduced in the house by Representative Clarence Lea of California will start on April 2, when representatives of the Federal Power Commission and the Federal Trade Commission will testify. The Federal Power Commission is designated as the administrative agency in the bill. Following the government witnesses will be spokesmen for the natural gas industry. It is expected the hearings will extend for approximately two weeks.

The subcommittee of the Interstate and Foreign Commerce Committee which will conduct the hearings is composed of Representative Lea, chairman; Representatives Cole of Maryland, Eicher of Iowa, Peyser of New York, Democrats; and Cooper of Ohio and Merrit of Connecticut, Republicans.

Refinery Projects

Gulf Leases Bulk Plant

Leasing by the Gulf Refining Co. of the former Cardinal-Dixie Oil Co. bulk plant in Muskegon, Mich., last week was seen as the first step toward establishment of a fourth major west Michigan distribution terminal on the Muskegon harbor.

Though plans of the Gulf company have not yet reached the development stage, it is known the company has been considering a marine terminal of its own at Muskegon for some time.

Since last fall the Gulf company has been using one of the three large storage tanks erected here last year by the White Star division, Socony-Vacuum Oil Co. The old Cardinal-Dixie bulk plant, including a pump house, a warehouse and about 40,000 gallons of storage, has been leased from Socony-Vacuum by whom it was purchased with a number of service stations in 1934 for $125,000. The amount paid for the bulk plant, part of which had been moved to the Socony-Vacuum tank farm south of Sherman Boulevard, was not revealed.

The move announced today is part of a Gulf program of expansion. C. L. Royers has been named resident agent and the company will erect a new office building.

Owen Sound Refinery

OWEN SOUND, Ontario, Mar. 28.—Nead Oil Refineries, Ltd., has purchased a factory property here and plan to erect a 750-bbl. Dubbs cracking unit in the next few months. Storage tanks are also to be erected. The company, of which A. J. Dean is president, plan to obtain their crude supply at a port or pipe line terminal on the lakes. The crude will be loaded on tankers at the port and transported to the refinery where it will be stored, the deliveries being made during the period navigation is open.

Fire Damages Pettus Refinery

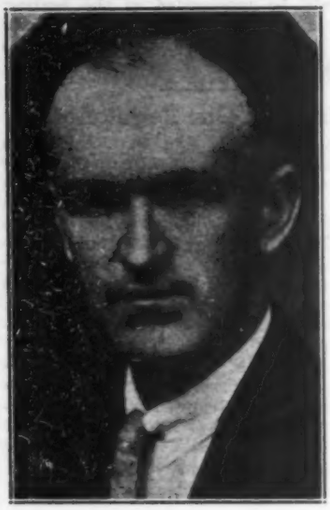
PETTUS, Tex., Mar. 28.—The Midway Oil & Refining Co.'s refinery here was damaged to the extent of approximately $1,500 to $2,000 this week when a fire broke out. The blaze started when a valve broke and the damage was done to equipment inside the refinery. The fire did not reach the storage tanks.

To Construct Storage Tanks

VANCOUVER, British Columbia, Mar. 28.—Standard Oil Co. of British Columbia, Ltd., will build two modern storage tanks for fuel oil on Vancouver Harbor at a cost of $20,000.

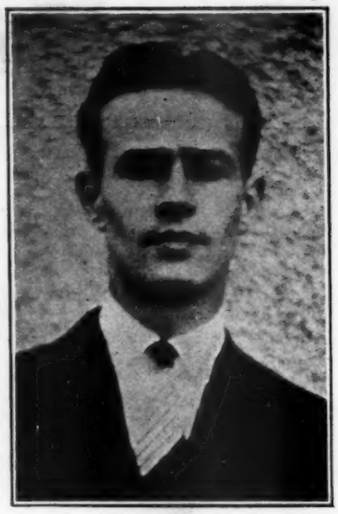
New Storage Tanks

COUTTS, Alberta, Mar. 28.—Contract has been let by the British-American Oil Co. for construction of two additional storage tanks to increase the capacity of their tank farm at the refinery here.



CHAS. E. SUTTON
Chairman

Southwest District A. P. I. Production Division Program



C. E. REISTLE, JR.
Vice Chairman, East Texas

The spring meeting of the southwestern district of the production division of the American Petroleum Institute is to be held on April 9 and 10 in the Washington-Youree Hotel, Shreveport, La. A complete technical program has been arranged for the two days.

The morning session on April 9 will be presided over by C. E. Sutton and the opening address will be by C. K. Moresi, state geologist, New Orleans, La., followed by William R. Boyd, executive vice president of the American Petroleum Institute, whose subject is "America's Greatest Industry."

The afternoon session starts at 2 p.m. with R. D. Risser of the Shell Petroleum Corp., Iowa, La., acting as chairman. The technical program consists of "Louisiana Petroleum Stratigraphy," by Dr. Henry V. Howe, Louisiana State University; "The Rodessa Oil Field," by J. S. Ivy, United Gas Co., and "Highlights and Personalities—Southwestern District" (a moving picture), C. P. Parsons, Halliburton Oil Well Cementing Co.

April 10, Friday, 9:30 a.m., Morning Session. Presiding: G. I. McBride, Texas Co., Shreveport, La. "Vocational Training in the Petroleum Industry," by W. H. Meier, Atlantic Oil Producing Co.; "Protective Equipment Used in Accident Prevention," by J. L. Risinger, Magnolia Petroleum Co., and "Membership in the Institute," by D. E. Buchanan, Hanlon-Buchanan, Inc., Tulsa.

2 p.m., Afternoon Session. Presiding: George B. Corless, Humble Oil & Refining Co., Houston, Tex. "Back Side Crank Pumping," by R. E. Bridges, Humble Oil & Refining Co.; "Direct Connected Diesel Engine Drilling Rigs," by Emil Opferkuch, Superior Engine Co.; "Mechanical Analysis of Various Type Rotary Drilling Rigs," by G. P. Livermore, Mandeville & Thompson, Inc. Report of Nominating Committee—Annual Election of Officers.

A number of social events have also been arranged together with a trip through the Rodessa oil field scheduled for Saturday, April 11.

The Program Committee for the Shreveport meeting is composed of R. D. Risser, chairman, Shell Petroleum Corp., Iowa, La.; G. B. Corless, Humble Oil & Refining Co., Houston, Tex.; H. H. Hardison, California Co., Midland, Tex.; W. F. Knode, consulting engineer, Corpus Christi, Tex.; G. I. McBride, Texas Co., Shreveport, La.; C. E. Reistle, Jr., East Texas Engineering Association, Kilgore, Tex.

The officers of the Southwestern District for 1935 are S. E. Sutton, chairman, Pure Oil Co., Houston, Tex.; H. H. Hardison, vice chairman for West Texas, California Co., Midland, Tex.; L. B. Holland, vice chairman for North Texas, Box 1576, Midland, Tex.; C. E. Reistle, Jr., vice chairman for East Texas, East Texas Engineering Association, Kilgore, Tex.; R. D. Risser, vice chairman for Arkansas and Louisiana, Shell Petroleum Corp., Iowa, La.; W. V. Vietti, vice chairman for Gulf Coast, Texas Co., Houston, Tex.; Francis Heath, secretary-treasurer, Sun Oil Co., Dallas, Tex.

The Special Committee of Shreveport Oil Men on Arrangements is composed of Arthur R. Campbell, chairman, Mid-Continent Oil and Gas Association, Shreveport, La.; Roy Benoit, Ohio Oil Co.; C. N. Black, Magnolia Petroleum Co.; J. A. Casky, Gulf Refining Co.; C. W. Hughes, Arkansas Natural Gas Co.; Lucien Hughes, Texas Co.; F. E. Lecaze, United Gas Public Service Co.; L. M. Moffitt, Triangle Drilling Co.; M. G. Stewart, Pelican Well Tool & Supply Co., and J. R. McWilliams, Standard Oil Co. of Louisiana.

Program for Western Refiners Excelsior Springs Meeting

If advance registrations may be taken as an indication of the attendance, the annual convention of the Western Petroleum Refiners Association to be held at the Elms Hotel, April 6, 7 and 8, at Excelsior Springs, Mo., will be one of the largest the association has held in recent years. A. V. Bourque, secretary, and John Day, assistant secretary, have been busy making arrangements for a complete program and for the comfort of those attending. They have been able to perfect an interesting program along lines which will cover all phases of refinery operation. The program follows:

Western Petroleum Refiners Association
Elms Hotel
Excelsior Springs, Mo.
April 6, 7 and 8, 1936

Monday, April 6

Meetings of all committees.

Opening Session—
Tuesday Afternoon, April 7

1:30 o'clock.—H. T. Ashton, Socony-Vacuum Oil Co. (Lubrite Division), executive vice president.

Report of Tractor Fuel Committee.

Discussion.

Reports of Manufacturers Lubricants Committee, W. E. Moody, Deep Rock Oil Corp., chairman.

Discussion.

Report of Diesel Fuel Survey Committee, F. E. Holsten, Barnsdall Oil Co., chairman.

Discussion.

Report of Octane Brackets Committee, A. E. Landsittel, Globe Oil & Refining Co., chairman.

Discussion.

Report of W.P.R.A. Specifications Committee, Emby Kaye, Skelly Oil Co., chairman.

Discussion.

Report of Committee on Posting Tankcar Prices, R. W. McDowell, Mid-Continent Petroleum Corp., chairman.

Discussion.

Report of Road Oil Committee, L. H. Prichard, Anderson-Prichard Oil Corp., chairman.

Discussion.

Morning Session—Wednesday, April 8

9:30 o'clock.—Meeting called to order by Roy B. Jones, Panhandle Refining Co., vice president.

C. M. Boggs, Kanotex Refining Co., president, presiding.

President's annual address—C. M. Boggs.

Appointment of committees.

Resolution on death of P. M. Miskell, George D. Locke, Barnsdall Oil Co.

Address: Taxation, Willis Crane, Washington office, W.P.R.A.

Remarks: Fayette B. Dow, Washington counsel.

Address: Social Security Legislation, Ralph Horween, Topliff and Horween, Chicago.

Recess for lunch.

Afternoon Session—Wednesday, April 8

1:30 o'clock.—R. W. McDowell, Mid-Continent Petroleum Corp., vice president, W.P.R.A., presiding.

Address: Cooperation, C. E. Arnott, Socony-Vacuum Oil Co.

Address: Alcohol in Motor Fuel, Dr. G. G. Brown, professor of chemical engineering, University of Michigan.

Report of committees.

Election of officers and directors.

Adjourn.

Meeting of board of directors, Western Petroleum Refiners Association.

Don't gamble on getting your copy of The Oil and Gas Journal's

GULF COAST NUMBER

to be published April 16. Place an advance order with your newsdealer, while he still has time to increase his stock of that number!

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GRADE 80—For heavy loads where corrosion is bad but sulphides not severe.

GRADE 90—For heavy loads and severe sulphide conditions.

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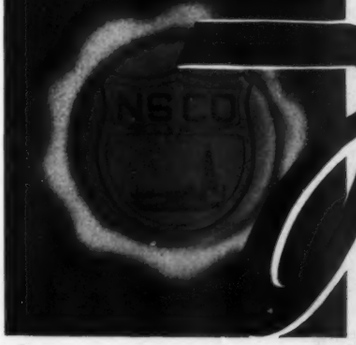


National

Oil News from Foreign Lands

France Importing More Crude but Much Less Gasoline

FRANCE

French Imports of petroleum in January, 1936, totaled approximately 3,818,010 bbls., a daily average of 123,161 bbls., compared with 3,611,104 bbls., or 116,487 bbls. daily, in January, 1935. The increase was due to larger imports of crude petroleum, partially offset by lower importations of gasoline. The gain in crude imports amounted to 365,708 bbls. Gasoline imports, on the others hand, declined by 145,929 bbls. Imports in approximate barrels are shown in the following table:

	January	
	1936	1935
Crude petroleum	3,188,374	2,822,666
Gasoline	260,512	406,441
Fuel oil	255,640	163,002
Gas oil	47,362	123,403
Lubricating oil	51,002	67,242
Miscellaneous	15,120	28,350
Total	3,818,010	3,611,104

A decree was published in the Journal Officiel of February 27 making alterations in import quotas on various petroleum products, for the period from April 1 to September 30, 1936, as follows: Gasoline, special and general licenses, reduced to 10 per cent from 15 per cent; kerosene reduced to 12 per cent from 15 per cent; gas oil, increased to 15 per cent from 10 per cent; other products, unchanged. This reduction in import quotas, it is believed, will have the effect of enlarging crude oil imports still further, to the benefit of French refineries. The increased supplies of crude are expected to come from Iraq.

Italian Crude Requirements Is Estimated by the League

ITALY

The League of Nations committee of experts has reported concerning Italy's oil requirements and its prospects for supplying them. The report consists mainly of "estimates," as the committee did not have access to official Italian records.

Stocks of oil on hand in Italy at the close of 1935 are estimated at between 4,900,000 and 5,600,000 bbls. (based on 7 bbls. to the ton), against 2,800,000 to 3,500,000 bbls. at the close of 1934. According to these estimates, Italy has improved its position substantially during the past year despite the abnormally large consumption in connection with military activities. In January, 1936, further substantial additions to stocks on hand took place, so that the country apparently is buying in excess of its current requirements.

Regarding the sources of present Italian oil purchases, the report estimates that the United States has played a much more important part in recent months. In past years relatively small quantities of oil products have been exported from the United States to Italy. In the period 1931 to 1934, for instance, the average percentages of Italian total supplies provided by this country were small with the exception of lubricating oils, of which the United States supplied more than 48 per cent. Only 6.5 per cent of the total oil requirements, including crude oil and all products, was supplied. The proportion of products supplied in addition to lubricating oils, was as follows: Gasoline, 9.4 per cent; kerosene, 5.2 per cent; fuel oil, 3.5 per cent, and crude oil, 14.9 per cent.

The present Italian consumption of all petroleum products is estimated at approximately 24,000,000 bbls. per annum, or a daily average of about 66,000 bbls. The committee of experts estimates that if Italian oil had to be drawn from ports in the Gulf of Mexico, the Italian oil tanker fleet would be able to transport about 33,000 bbls. daily, or half its total requirements. Thus, tankers of other countries would have to be acquired or chartered to move the remainder, to the extent of approximately 225,000 gross tons (or about 15 modern large tankers). Were an embargo on transport to be imposed against Italy by the members of the League of Nations, there would remain for this purpose vessels belonging to the tanker fleets of the United States and Germany. Available German tankers, it is estimated, would total about 90,000 tons, leaving the remainder to be supplied by American tank steamer operators.

In the conditions prevailing at present, the committee estimates it would require from three to three and a half months to make an oil embargo against Italy fully effective.

Oil Production in Venezuela, Iran and Ecuador

PRODUCTION

Crude oil production by Royal Dutch-Shell subsidiaries in Venezuela for the four weeks ending March 14, 1936, totaled 4,368,500 bbls. a daily average of 156,017 bbls. Total production by companies was as follows: Venezuelan Oil Concessions, Ltd., 3,068,700 bbls.; Caribbean Petroleum Co., Ltd., 913,800 bbls., and Colon Development Co., Ltd., 386,000 bbls. for four weeks ended March 13.

Crude oil production in Iran for February, 1936, amounted to 640,000 tons, compared with 661,000 tons in January. Production for the year 1935 is estimated at 7,487,697 tons.

Production of crude oil in Ecuador in February was approximately 118,398 bbls., a daily average of 4,082 bbls., compared with 127,911 bbls., or 4,126 bbls., in January.

Two Tests in Venezuela; Active in Aruba and Curacao

VENEZUELA

Cable advices from Venezuela state that Standard Oil Co. of Venezuela has completed the fishing job on its No. 1 Lirial, in the state of Monagas, southwest of the Quiriquire oil field in eastern Venezuela, and will shortly resume drilling from the present depth of 5,190 feet. A second wildcat test, No. 1 Salto, in southwestern Monagas, is drilling at a total depth of 3,100 feet having completed setting of casing. The latter test is reported to have encountered lignitic and carbonaceous formations below 2,500 feet. Both tests are drilling on acreage of the Pantepec Oil Co.

Aruba and Curacao, two large refining centers in the Dutch West Indies, which have become of major importance in the international oil trade during the past 10 years with the development of the Venezuelan oil fields and the establishment of a tax on the importation of crude oil into the United States, now enjoy the most active trade with Europe, having superceded such sources of supply as the United States Gulf, Rumania and Russia in supplying European requirements.

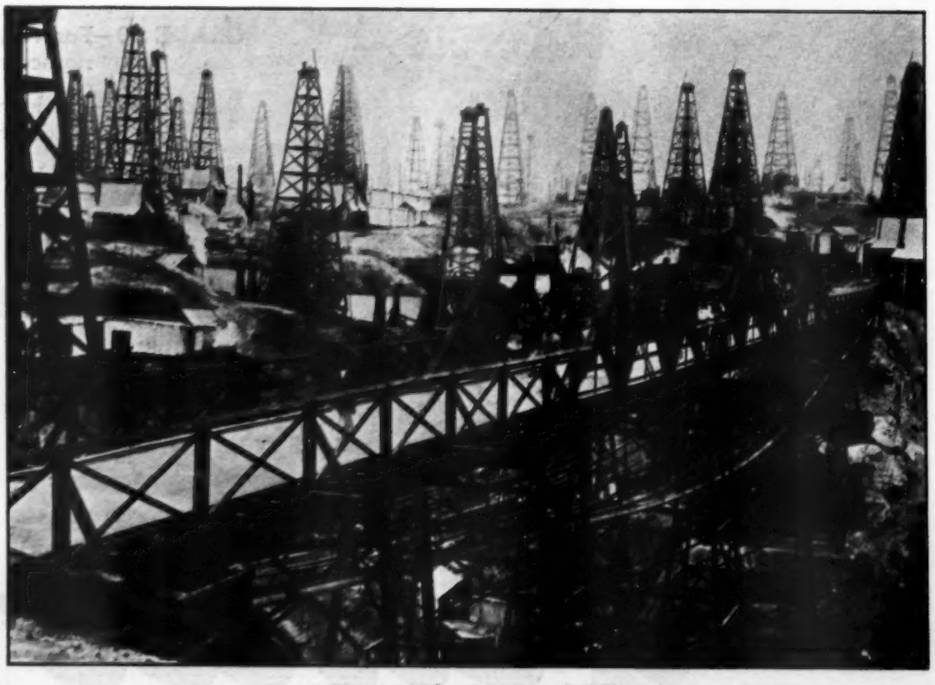
In connection with this, it is interesting to note that during the past month oil tankers have been most in demand for chartering in the trade between Aruba and Curacao and the United Kingdom-Continent. The rates on this business now average 11s.6d. per ton (approximately 40 cents per barrel), a slight decline compared with rates prevailing early in March. On this basis this trade enjoys an advantage over other sources of oil supply for Europe.

Oil tanker rates on refined pretroleum to Europe (United Kingdom or continental Atlantic ports) are now as follows:

From—	Shillings per ton	Cents per barrel (approxi.)
Curacao-Aruba, D. W. Indies	11s 6d	40
U. S. Gulf	14s	50
Constanza, Rumania	13s 6d	48.5
Batoum, Russia	12s	43
Bahrein Island, Persian Gulf	*21s	75
Abadan, Iran	21s	75
Haifa, Palestine (Iraq crude)	*9s 9d	35.3
Trinidad, B. W. Indies	12s	43

It will be noted that Iraq oil is the only one which has a lower transportation rate than has Curacao-Aruba, but it should be remembered that this crude has to be hauled more than 1,000 miles through a pipe line before reaching Haifa.

The three refineries in the Dutch West Indies, have a combined daily capacity of more than 30,000 bbls.



Scene in the Burma oil field

Another NEW GASOLINE PLANT INSTALLS COOPER-BESSEMERS

TIME and time again, the new gasoline plants and refineries follow the voice of experience, which says, "You're always safe in choosing Cooper-Bessemers!" *This time* it's the new plant of Gilliland General Gasoline Company, Rusk County, in the heart of East Texas.

In YOUR refinery, in YOUR gasoline plant - or wherever YOU need compressor units of 230 H. P. — it pays to have the power that offers the utmost in convenience, reliability, and economy. The new Cooper-Bessemer units give you all this — and also the greatest load capacity per engine dollar. Investigate!

Upper photo shows nine Cooper-Bessemer two-cycle twin compressor units, each rated 230 H. P. Lower photo shows the Cooper-Bessemer Type G-AW two-cycle twin gas engine, rated 125 H. P., which belt-drives a generator to provide power for operating the pumps, etc.

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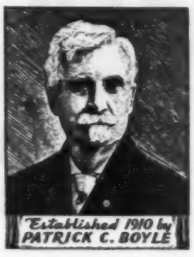

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To Be Considered

Federal regulation of bus and truck operations, under the motor carrier act enacted last October, became a reality April 1 when the tariffs and schedules filed with the Interstate Commerce Commission became effective. The oil industry will await the result with grave concern because it is just being realized how largely bus and truck operations have been responsible for the unexpected and even astonishing gains in gasoline consumption that have been recently reported.

Despite weather conditions in many sections which discouraged all but the most necessary use of passenger cars, consumption has been surprisingly large and it is now being attributed to trucks and buses which maintained and even increased service as individual transportation was interrupted.

The trend of increase in the number of trucks and buses has been greater than in passenger cars, a fact noted by the American Petroleum Institute estimate that average motor vehicle consumption of gasoline might reach 730 gallons a year by 1940 partly due to the increase in number of trucks.

Clearly, then, any legislation which may have the effect of restricting the use of trucks and buses must be taken into serious account in calculating gasoline demand. The restrictions imposed by the motor carrier act come at a time when the railroads have at last awakened to the possibilities of improving their service, by lighter and better equipment, by air conditioning and reduced fares. Bus and truck operation will have to meet this stiffer competition under heavier taxation and new and onerous regulations assisting their railroad competitors.

The oil industry has been extraordinarily fortunate in having had, with the exception of a very slight decline in the depth of the depression, a continually enlarging demand for its chief product. This, naturally, has intensified the ordinary optimism of the industry but such possibilities as interference with the growth of truck and bus consumption must be considered. Even the Institute survey looked for a continuing reduction in demand after a few years owing to the trend toward lighter cars and changes in engine design. Lessened truck and bus consumption would accelerate such a decline.

Such a possibility emphasizes anew the necessity for redoubled energy in research and development by the industry looking toward new products, new uses and new markets for petroleum products. The progress made thus far is admittedly but a beginning in the discovery and utilization of processes and products yet to be disclosed which will keep the industry busy as long as oil is to be found.

In this age the most remarkable industrial successes have been those which were based upon intensive research which led to pioneering in new fields instead of competition in splitting old markets.

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Character of Water Plays Important Part in Any Flooding Operation

By L. G. E. BIGNELL

To successfully increase oil recovery from old fields by water flooding three essential elements are needed, recoverable oil, suitable water for flooding and fuel, usually gas, for power. While these requirements may seem obvious operators who have had experience with water flooding have come to realize the importance of coordination of all three elements in proper proportion if the success of the undertaking is to be assured. Without recoverable oil it is useless to undertake the work and this does not mean oil remaining in the formation but only that portion of the oil which may be recovered through use of the other elements at hand.

Water is a main factor in flooding operations and it is not possible to secure desired results by simply dumping water down the hole and trusting to luck the oil will be driven ahead of it to the oil wells. If the water is not properly treated and all undesirable solids and impurities removed before it is used in the flooding operation the pores in the sand may be sealed with precipitated solids from both the flooding and formation waters.

Fuel for power purposes is also important for the old wells do not produce sufficient gas with the oil to furnish sufficient fuel for the gas engines used for powers and for pumps and it is usually necessary to either develop gas from some other than the oil-producing formation or to buy gas from some service system.

By properly coring the producing sands and examining the cores in a laboratory it is possible to determine saturation, porosity and permeability. From these data logs of the individual wells in an area to be flooded may be prepared and the general character of the sand determined. This information will determine the recoverable oil in the area under consideration, one of the first factors of the water flooding project to be determined.

For the average input water well from 50 to 100 bbls. of water per day will be required. This water must be free of solids or of elements in solution which would combine with other elements in solution in the formation waters and cause solids to be precipitated in the pores of the formation.

One water flooding project of interest has been developed by Donald P. Oakes of Tulsa, who in May, 1934, blocked 210 acres of leases in the Alluwe district, Nowata County, Oklahoma, and then interested H. J. Walter Oil Co. of Bradford, Pa., in a water flooding project. To this original tract 190 acres has since been added and of the whole two 80-acre leases are now under flood or being prepared for flooding.

During the summer of 1934 the work was started by drilling 22 oil input wells on the V. Coker farm for five-spot development. These wells put 62 acres of the 80-acre tract in condition for the first flood and since that time additional water input wells have been completed so that both the V. Coker 80 acres and the W. Myers tract of 80 acres immediately south of the Coker farm now have all input water wells completed excepting those along the boundaries of the two tracts on the east and south.

Portable drilling machine at recently completed input water well

These input water wells are spaced 440 feet apart so each five-spot covers 4.445 acres instead of the usual 2.5 acres included in the 330-foot water well spacing. This system of water well spacing reduced development costs, an item in favor of such a project, and it is believed ultimate recovery will be as good as with the closer spacing although it is admitted the peak of oil production will be delayed in the wider spaced tracts from six months to a year.

It is also probable higher input water pressures will be required to drive the flood water through the formation with the 440-foot spacing but this may result in higher ultimate yield because the water must travel a long distance from input to oil well and danger of by-passing may be reduced. Until data are collected after the flood water reaches the oil wells and the horizontal pressure gradients are determined it will not be possible to make direct comparison between the two well spacing programs. However, it is believed with the wider spacing there will be more tendency for a broader bank of oil to form nearer the water input wells because the path of the flood water will be broader on the 4.445-acre five-spot units than on the 2.5-acre units with the closer water well spacing.

In starting this work Mr. Oakes decided to develop only 62 acres of the V. Coker 80-acre farm and while drilling the input water wells the old oil wells were produced, making from one-quarter to three-quarters barrel of oil daily. The first drilling operation completed two input water wells and later three more water wells were drilled. Water was first applied to this tract in July, 1934, and in November of the same year started drilling oil wells in the center of each group of four input water wells. With the drilling of the new oil wells the old oil wells were plugged and the oil is now being produced entirely from the flooded area through the new wells. These oil wells are now producing an average of 10 bbls. daily.

The Bartlesville is the producing sand formation in this area and the top of it is found at about 480 feet below the surface. The upper 10 feet of this formation is a sand lense in which some oil still remains and below this sand body there is about 8 feet of shale. Beneath the shale member there is from 15 to 20 feet of additional producing sand and below this sand body a dry shale is found. The average producing sand in this tract is about 25 feet thick. It now contains on the average about 9,000 bbls. of oil and it is expected a recovery of 45 per cent, or 4,000 bbls. per acre, will be secured by the water flood.

The water input wells are 8-inch diameter and drilled with cable tools and portable outfits to just above the Bartlesville sand. The producing sand is then drilled with a 6¼-inch

Water plant on H. J. Walters Co. property in Allewe district, Nowata County, Oklahoma

bit and about 20-foot pocket is drilled into the shale below the sand. The sand section is next shot and then the hole is reamed to give a full 8-inch diameter and all debris from reaming and shot cleaned out before the string of 6¼-inch reclaimed casing is run.

This casing is provided with bottom-hole nipple and run to the seat. This seat may vary from immediately on top of the Bartlesville to as much as 6 feet in this sand, depending upon the position of a gas sand encountered in some holes at the top of the pay section. If it is present it is desirable to run the casing below this porous and permeable stratum to shut it off and prevent the flood water from running into it where it will do no good.

After the 6¼-inch casing has been run it is lifted off bottom and the hole bailed dry of all fluid to a point below the casing seat. The casing is then lowered to the seat and a mixture of one part cement and one part sand is poured into the annular space behind the casing, filling the hole to the ground level. This cement job is then tested and if cement has escaped around the bottom-hole nipple the hole is bridged in the top of the Bartlesville sand and a fresh batch of cement is run on the outside of the casing and the inside of the casing filled with water to equalize pressures. The cement is allowed to set for 48 hours before the plug and bridge is drilled out and the cement job again tested.

For water wells 1 quart of nitroglycerin is used for each foot of pay section penetrated and for oil wells from 2 to 2½ quarts per foot of pay sand.

Interior of geared power on water flooded property in Nowata district

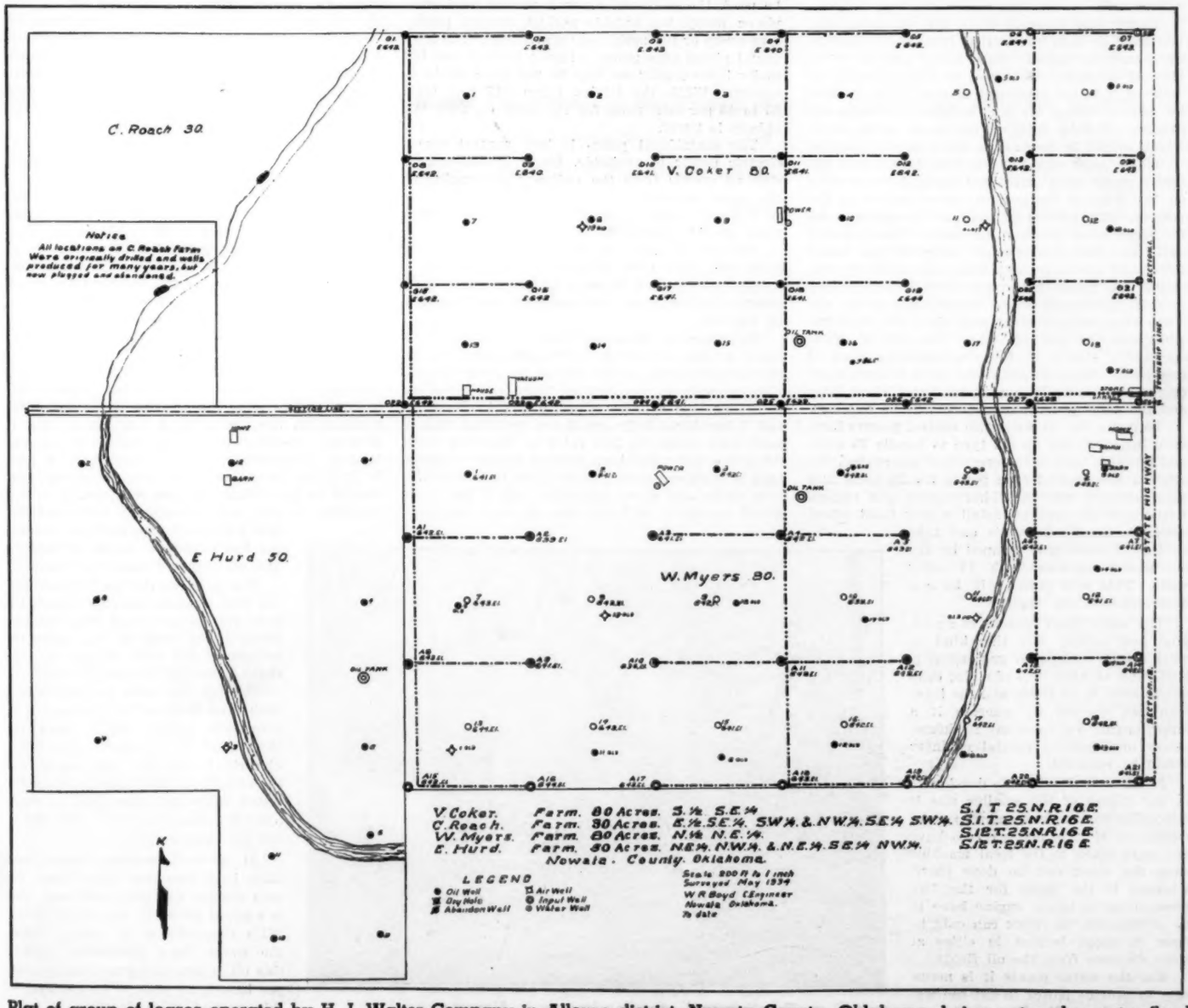
After the water wells were completed the next operation was to lay the water system. The flood water is secured from 40-foot drilled water wells, two in number. One of these wells is newly drilled and is 10-inch diameter and the other well is an old oil well plugged back to this water bearing formation. These two wells provide sufficient water for the flooding operations to date. At the start about 1,000 bbls. of water was used daily but has been since increased to about 1,600 bbls. daily.

This water contains some iron in solution and is treated by adding alum after the water has been sprayed to convert the iron to iron oxide and when the alum is added this iron oxide coagulates and is precipitated. For the 1,000 bbls. of water about 5 pounds of alum was used daily and for the 1,600 bbls. from 7 to 8 pounds of alum is used.

The following analysis of the raw water and treated water indicates the change taking place through treatment and aeration.

	Raw water p.p.m.	Treated water p.p.m.
Suspended matter	25	1
Turbidity	25	...
Hardness, total, $CaCO_3$	308	308
Alkalinity	304	301
Free carbonate, CO_2	31	26
Iron as Fe	4.5	0.1
Chlorides as NaCl	31	31
pH	6 9	7.0

This water is treated first to remove the iron from solution and second to stabilize any solids in the water. If these solids form a supersaturated solution they will be precipitated in the pores of the formation when introduced for water flooding and if undersaturated the water has more tendency to corrode the pipes on the surface and in


C. Roach 30.
V. Coker 80.
E Hurd 30.
W. Myers 80.
Notice
All locations on C. Roach Farm Were originally drilled and wells produced for many years, but now plugged and abandoned.
STATE HIGHWAY
V. Coker. Farm. 80 Acres. S. ½ S.E.¼ S.I.T.25.N.R.16.E.
C. Roach. Farm. 30 Acres. E.½.S.E.¼. SW¼.&.NW¼.SE¼ SW¼. S.I.T.25.N.R.16.E.
W. Myers. Farm. 80 Acres. N.½ N.E.¼. S.I.E.T.25.N.R.16.E.
E. Hurd. Farm. 30 Acres. NE¼. NW¼. & N.E.¼. S.E.¼ NW¼. S.I.E.T.25N.R.16.E.
Nowata. County. Oklahoma.
LEGEND
Oil Well
Dry Hole
Abandon Well
Air Well
Input Well
Water Well
State 800 ft to 1 inch
Surveyed May 1934
W R Boyd C.Engineer
Nowata Oklahoma.
To date

Plat of group of leases operated by H. J. Walter Company in Allew e district, Nowata County, Oklahoma, being put under water flood

well water system. If corrosion occurs the iron oxide created will be washed into the well and plug the face of the producing formation regardless of treatment of the raw water before it was pumped into this system.

The water system for this 80-acre tract consists of the pump plant located in one corner of the lease and a 3-inch main line running to the edge of the property. From the 3-inch line 2-inch laterals distribute the water to groups of nine wells and each of these wells is served by a 1-inch line leading from the 2-inch lines.

The pipe line system is so laid out that a group of three water meters is placed at the take-off from the 2-inch laterals and the water passing through the 1-inch lines to each well is metered and the meter read each day. This record permits the operator to check the water input and to regulate the volume of each well as required.

When the water input was started the pressure was about 300 pounds per square inch at the pumps and has since built up to about 500 pounds at that point. The well depth is 480 feet so the hydrostatic pressure exerted by this column of water against the face of the sand is about 215 pounds per square inch and the total pressure now exerted on the formation by the water drive is approximately 800 pounds per square inch.

Under this pressure drive the oil wells have increased in daily production from one-quarter to three-quarters barrels daily to an average of 10 bbls. of oil daily. This rate of production is not believed to be the maximum or peak to be attained by water-flooding for it is believed the wells will produce 15 bbls. daily at the peak of the drive which should be reached in eight or nine months.

Since the original block was drilled and put under water flood additional rows of water wells on two sides of the property were started in November, 1935, adding 10 wells and providing area for eight more five-spot oil wells. Three old oil wells are now used for oil wells for the water flood and one new well was very recently completed. To finish this project it will be necessary to drill additional water input wells along the south edge of the tract and then complete the additional five-spot oil wells. This line of development is shown in the accompanying map of this lease. There is additional land around these original leases to be put under water flood later and the same general procedure will be followed.

To pump the oil wells two central powers have been installed, one an old type to handle 19 wells and powered with a 25-horsepower gas engine, the other a new geared type power for 18 wells and also powered with a 25-horsepower gas engine. Later is is planned to install a new band wheel power to handle 35 wells and take on the 19 wells now pumped by the old power together with 16 other wells. This new power will have a 35-horsepower gas engine.

The water plant consists of an engine and pump. For this kind of work the 50-horsepower gas engine is preferable because it is of a size commonly used in oil fields and the leaseman can operate it, whereas if a larger engine was used, say 100 horsepower or bigger, a special engineer would be required.

In the event of trouble developing in the engine of the smaller size it is possible for the lease man to make repairs or if it is necessary to have any part taken to the local machine shop the work can be done there, whereas if the parts for the 100-horsepower or larger engine have to be overhauled, the work can only be done in shops located in cities at some distance from the oil fields.

For the water plants it is necessary to provide power to lift the water from the well. The plant may be a compressor for air-lift or a deep well centrifugal pump may be installed. On the H. J. Walter's property both air-lift and deep well pump are used, the pump being driven by belt from gas engine.

The raw water is next delivered into the receiving tank and from there is usually pumped by low pressure centrifugal pump into the filter system. From the filter system the clear water is delivered to the suction side of the power pump used to force it through the water distributing system to the wells being used for water input.

Group of three water meter recorders at junction of 2- and 1-inch lines

Any one of three types of power pumps may be used, the ordinary common variety horizontal piston pump, the outside packed vertical triplex type pump or the multistage centrifugal. The horizontal piston type pump is lowest in first cost but under lease conditions may be the more costly to operate. While the triplex pump will cost from 35 to 45 per cent more for the same capacity the upkeep is lower.

The centrifugal pump is best applied where electric power is available, for it is difficult to step up speeds from the ordinary gas engine to the speed necessary for the multistage centrifugal pump needed to build up the required pressures for this kind of work.

The triplex pump lends itself nicely to V-belt drive and this type installation will require a comparatively small building to house engine and pump. The horizontal type pump is usually driven by flat belt.

In laying out the water plant it is desirable to select a site, if possible, where the filter can be elevated above the intake side of the power pump. This requires an elevation of from 6 to 8 feet as the filter is a cylinder about 6 feet in diameter and 7 feet high, fully closed and provided with a sand body about 3½ feet thick in the lower part. After the water has been treated in the receiving tank it is passed through this filter to remove the iron oxide and other sediments and it has been found necessary to back wash through the sand body about once every 12 hours to remove the material accumulated on the face of the sand. This back wash consists of reversing direction of flow through the layer of sand in the bottom of the filter and flushing out accumulated sediments.

Treating water for water flooding has been developed to the point where any kind of water may be used, even salt water. A new system recently developed by laboratory experimenting is soon to be installed on the Walters property and the raw water will be rectified to the same consistency before passing to the filter. When flood water is recovered along with the oil it is usually saturated with salt picked up in passing through the sand and if it were not possible to treat even this kind of water in this system the operator would be faced with a salt water disposal problem.

The gas for the engines on the H. J. Walter tracts is secured from the Oswego lime found at about 110 feet depth. Three gas wells have been drilled to this lime formation and each produce between 8,000 and 10,000 feet of gas daily. As this property was under gas repressuring before the water flooding was started there was some gas available from the old oil wells as they were produced while water wells were being drilled.

Since the water flood has become effective it has been noted the production of gas from the oil wells has ceased. This is accounted for through the change from pumping gas into the formation to produce the oil and reclaiming a portion of that gas with the oil. When the oil was produced through the gas repressuring method the gravity was about 33 degrees and oil from the new wells under the water flood averages 37 degrees gravity with a few tanks of 38 degrees gravity.

This increase in gravity is also accounted for by the change in production methods during which the passage of gas or vapor through the oil sands and the robbing of the oil of part of its light fractions through contact with this gas has been stopped. The gas was introduced at about 150 pounds pressure but it is known part of it by-passed the oil in the formation. With the water flood operating at about 800 pounds pressure at the face of the formation the oil is being pushed ahead of the water and the higher gravity oil produced.

Permeability of the sand is the controlling factor in the water drive. With the permeability of the sand uniform the bank of water moving through the formation will also be uniform and it is therefore quite essential to study the meter readings on the water input wells every day to determine relative water movements in the formation. If the sand is taking the water too freely it is an indication of a very permeable sand section in the vicinity of that well and it is then necessary to reduce the volume of water put into that particular area until the flood in the less permeable sands catches up, and oil recovery equalizes again.

For pumping the wells 2-inch tubing with common working barrels has been run in each well. The working barrel is set about 10 feet above the bottom of the hole drilled into the shale below the Bartlesville sand. No trouble has been thus far experienced with sand in these wells because this formation stands well. After the shooting of the formation with nitroglycerin it requires only about one to one and one-half tours to clean the water wells and from two to three tours to remove the debris after shooting the sand wells.

At the well head new pump jacks have been installed with about 20-inch strokes and as stated each well is making about 10 bbls. of oil daily. With the increase in gravity under the water flood production method this oil is now bringing 8 cents more per barrel, an item to be credited to this method of production.

Treating tanks for flood water in Nowata area

Chemical Processes in Refining of Petroleum Distillates

By JACQUE C. MORRELL and GUSTAV EGLOFF
Research Laboratories, Universal Oil Products Co.

Morrell, Benedict and Egloff[1] made a further investigation on the photochemical formation of color, haze, gum and reaction products in gasolines in the presence of oxygen, nitrogen and hydrogen, and the factors involved in the same. The source of light was a carbon arc lamp used in the earlier work. Their general conclusions from this work are as follows:

1. Refined Mid-Continent straightrun gasoline exposed to the carbon arc light in the presence of air or oxygen developed color, gum, peroxides, acids and aldehydes. The same effects were observed with cracked gasoline and blends. The straightrun and blended gasolines developed haze but the cracked gasoline did not.

2. The formation of gum, peroxides, acids, aldehydes, and haze did not occur in either the straightrun or cracked gasoline in the dark even in the presence of oxygen, sulfur, or both, and at the same temperature as the samples exposed to the arc light. The reactions are therefore photochemical.

3. With oxygen and exposure to light the cracked and blended gasolines formed more gum than the straightrun gasoline.

4. Elementary sulfur increased the formation of color, haze and gum upon exposure of the gasolines to light in the presence of air or oxygen. Cracked and blended gasolines formed more gum with sulfur present than the straightrun gasoline.

5. With nitrogen, carbon dioxide or hydrogen, color and gum formed in the presence of sulfur. Hydrogen sulfide was evolved in all cases.

6. Haze particles contained sulfur dioxide and trioxide and/or corresponding acids and organic material. Most of the acid formed in the gasoline was found in the haze particles which could be removed by filtration through filter paper.

7. Removal of haze by filtration improved the color but did not affect the gum content of the gasoline.

8. Exposure to light and air of straightrun gasoline from which sulfur and disulfides had been removed resulted in no haze formation and only a slight drop in color.

An extension of this work on gasolines was made on the photochemical formation of color, haze and reaction products in pure hydrocarbons. The hydrocarbons used were: n-heptane; 2, 2, 4-trimethylpentane; 2-octylene; di-isobutylene; cyclohexane; cyclohexene; toluene; cyclopentadiene; pinene; and limonene.

It was concluded from this work that chemical and physical properties of hydrocarbons as indicated by the bromine number and refractive index were unchanged by exposure to light either in the presence or absence of sulfur or n-propyldisulfide. The hydrocarbons could be recovered in as pure state as from the original distillation. It may be concluded therefore that the reactions resulting in the formation of color, haze, peroxides, etc., under conditions of ordinary air exposure affect only a small amount of the hydrocarbons.

This article is the third portion of a treatise by Doctor Morrell and Doctor Egloff in which they discuss chemical treating of petroleum distillates. The first part appeared in the issue of March 19 and the second in the March 26 issue. The remainder is to be published in a following issue.

The pure hydrocarbons formed no color or haze upon exposure to light, with the exception of benzene, which became colored in oxygen, nitrogen or hydrogen. Peroxides, aldehydes and acids formed upon exposure of the hydrocarbons to light and oxygen. The olefin, cyclo-olefin, di-olefin and terpene hydrocarbons oxidized more readily than the paraffin, cycloparaffin or aromatic hydrocarbons.

Comparison of the work with pure hydrocarbons and with straightrun, cracked and blended gasolines, with and without added sulfur or n-propyldisulfide, shows that the behavior of the gasolines was such as would be expected of mixtures of various types of hydrocarbons. In general, pure hydrocarbons or gasolines from which sulfur and disulfides had been removed were color-stable in light. The response to sulfur or paraffin, cycloparaffin and aromatic hydrocarbons was similar to straightrun gasoline except that the straightrun gasoline had higher peroxide numbers in oxygen and formed mercaptans in nitrogen or hydrogen. These differences might be accounted for by the presence of unsaturates in the straightrun gasoline. The response of unsaturated hydrocarbons to sulfur was like that of cracked gasoline. The behavior of hydrocarbons containing n-propyldisulfide was similar to gasolines. The disulfides had less deleterious effect on the color stability of unsaturated hydrocarbons and cracked gasoline than it did on the stability of saturated or aromatic hydrocarbons or straightrun gasoline.

Dye, Color and Gum Inhibitors

A large variety of dyes in respect to chemical types and colors have been employed[1,2] for gasolines to impart distinctive colors to them and to offset to some extent drastic refining to produce a water-white color.

Where a 25 to 30 Saybolt color gasoline is required, inhibitors may be used to stabilize the color in respect to exposure to sunlight and also to prevent haze formation. Several aliphatic amines have been found satisfactory for this purpose.

A large number of substances may be used as inhibitors but practically, the selection of an inhibitor is a question of economy. Most gasoline inhibitors contain phenolic or aromatic amine groupings or both. Effectiveness usually increases where more than one hydroxyl (phenolic) or amino grouping is present or where they are present together as in amino phenols.

Solubility in gasoline, insolubility in water, volatility and other properties are also deciding factors in the choice of an inhibitor. The inhibitor should impart little or no color to the gasoline.

As examples of results obtained with various inhibitors, the following data may be shown (the induction period being measured by the usual pressure bomb accelerated oxidation test) in Table 21[3].

To show the variation in susceptibility to inhibitors the data in Table 22 are presented[4].

The Gray Process

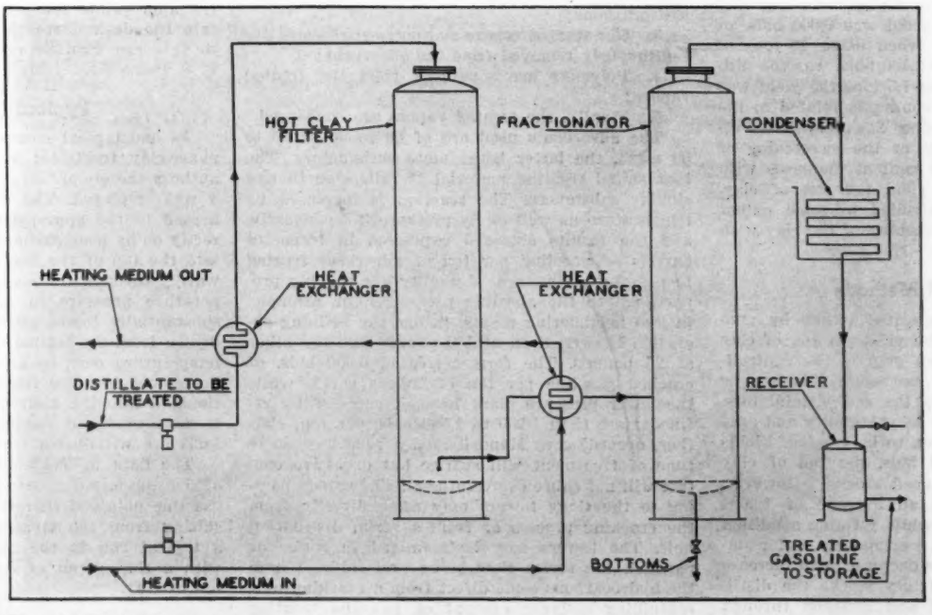


Fig. 4—Flow sheet showing simplified apparatus used in a typical commercial installation of the liquid phase-clay process of treating petroleum distillates

[1]Paper presented before the American Chemical Society meeting in New York, April 22-23, 1935.

[1]Egloff, Morrell and Truesdell, The Oil and Gas Journal, 29, No. 42, 133 (1931).

[2]Lowry, Egloff, Morrell, and Dryer, J.I.E.C., 27, 413 (1935).

[3]Dryer, Morrell, Egloff, and Lowry, J.I.E.C., 27, 15 (1935).

[4]Lowry, Dryer, Morrell, and Egloff, The Oil and Gas Journal, 33, No. 12, 8 (1934).

(U. S. Patent No. 1,340,889) relates to a method of treating mineral oil hydrocarbon mixtures containing unsaturated constituents which comprises vaporizing the same and passing the vapors outside of the vaporizing chamber in contact with catalytic material heated above the condensing point of the entering vapors without cracking in the presence of the catalyst. More specifically mineral oil hydrocarbon mixtures in the state of vapor are passed through fullers earth heated above the condensing point of the entering vapors and thereby effecting a substantial reduction in the objectionable unsaturated constituents. U. S. Patent No. 1,759,812 describes a process wherein the cracked hydrocarbons while in vapor form are passed around the body of adsorptive catalytic material, thus effecting a heat exchange. In U. S. Patent No. 1,759,813 a further improvement was introduced in the use of a solvent to activate or cleanse the adsorbent continuously during passage of the vapors there-through. Later improvements were directed to other combinations involving fractionation, etc.

Practical Operation

In the practical operation of the Gray Process the vapors from the still enter the top of the clay tower and pass through the clay. The vapors leaving the bottom of the clay tower may then pass through a so-called knock-out box to remove entrained liquid or polymers and from there through a fractionating column, condenser coil and to storage. The undesirable compounds are polymerized and separated. It has been found desirable to introduce a small amount of steam into the clay tower during the operation and also to spray in gasoline into the top of the tower to act as a solvent and to assist in washing the clay free of polymers. One or more towers may be used in series.

Clay treatment generally may be carried out by rerunning the pressure distillate in a separate unit and passing the vapors through a vessel filled with clay. However, it is preferably and with greater economy carried out by conducting the vapors direct from the cracking unit through the clay-containing vessel. The treated vapors then pass to a fractionator for complete separation of entrained polymerized material and final fractionation of the desired product prior to condensation. The clay-containing towers may be used singly and doubly, both in parallel and in series, and in some cases several towers may be so employed. Where the series flow is employed the polymer fraction is separated intermediate between the two towers.

According to Foster[1] the ultimate yield of treated distillate per ton of clay is intimately related to the rate of passage of the vapors through a clay bed; for example, when using 30 tons of clay in a treater the ultimate yield was 6,000 bbls. of finished gasoline per ton, when using 15 tons of clay at the same feed rate 2,400 bbls. was the ultimate yield, and when using 7.5 tons the yield was only 1,700 bbls. This, of course, is related to the time of contact. The process has very little effect on the sulfur content or the sweetening of the gasoline, and the gum content increases with increase in the gasoline yield per ton of clay, although this can be controlled to some extent by periodic steaming and washing of the clay with gasoline.

Two Control Methods

The process can be operated either by gum control or stream color. The yield per ton of clay will usually be lower when gum is the controlling factor than for color, although this can be offset to a great extent by the use of inhibitors. The yields per ton of clay, color stability and gum content, vary with the stock to be treated. Yields as high as 4,000 to 6,000 bbls. per ton of clay have been reported with good stocks. However, Price and Brandt[2] report an average of 10,000 bbls. per ton of clay used while refining a million barrels of cracked gasoline continuously. Color stability and induction periods decrease with increase in yield. From more refractory stocks the distillate may be acid treated and distilled through the earth, but some cracked distillates are uneconomical to treat by this process.

[1]National Pet. News, Jan. 25, 1933, pp. 60-63.
[2]The Oil and Gas Journal, March 28, 54 (1935).

TABLE 21—INDUCTION PERIOD AND STORAGE LIFE
(Pennsylvania Untreated Gasoline)

Inhibitor—	Concentration per cent	Induction period min.	Storage life† months
Pyrogallol	0.0016	265	17
Wood tar distillate	0.010	230	13*
1, 5-Dihydroxynaphalene-naphthol	0.0020	195	9*
	0.0018	170	9
Wood tar distillate	0.005	150	9
2-Amino-4-nitrophenol	0.0019	130	5
Catechol	0.0014	130	4
Hydroquinone	0.0014	80	6
None	.....	60	3

*Over. †Time required to exceed 10 mg. air jet gum (A.S.T.M. former method A).

TABLE 22—STORAGE LIFE OF INHIBITED GASOLINES

Gasoline—	Concentration wood tar inhibitor, %	Induction period min.	Storage life, months†
West Texas reformed, unrefined	0.025	310	18*
	None	40	1
Pennsylvania clay treated	0.0047	285	19*
	None	185	7
Mid-Continent unrefined	0.025	340	8
	None	245	5
Mid-Continent refined	0.025	345	16
	None	205	12

*Over. †Time required to exceed 10 mg. air jet gum (A.S.T.M. former method A).

TABLE 23—ANALYSES OF PRESSURE DISTILLATE AND GASOLINE AND RESULTING POLYMERS

	Pressure distillate	Pressure gasoline	Polymers
°A.P.I.	52.1	59.1	32.0
Initial	81	74	354
5%	123	104	392
10%	145	118	395
20%	191	147	403
30%	226	185	408
40%	269	219	410
50%	309	254	414
60%	342	279	418
70%	370	304	423
80%	389	330	432
90%	407	360	476
95%	424	381	605
End	424	391	Cracking
Rec.	95%	96.5%	...
Color	Yellow	+30	Dark amber
O. N.	69.5	71	...
Copper dish	400 + mg.	10 mg.	...
Ind. per	...	150 min.	...
Sulfur	.18%	...	...

Volume Processed

Mandelbaum[1] states that since its commercial adoption in 1924 the Gray process has a treating capacity aggregating 100,000 bbls. of cracked gasoline per day. He sums up the rationale of the Gray process as follows:

1. A gasoline fraction is separated from a vaporized cracked distillate;
2. The separated fraction, while in vapor form, is contacted with an adsorbent having the property of selectively polymerizing the objectionable hydrocarbons;
3. The treated vapors and polymers formed are continuously removed from the adsorbent;
4. Polymers are separated from the treated vapors;
5. Finally, the treated vapors are condensed.

The adsorbents used are of 60 to 90 or 30 to 60 mesh, the latter being more satisfactory. The best suited treating material is fullers earth and similar substances. The reaction is increased by temperature as well as by pressure independently, and the results obtained expressed in terms of barrels of gasoline per ton of adsorbent treated to a definite standard of quality are roughly proportional to the absolute pressure. For example, in two neighboring plants, in one the refining operation is carried on at 150 pounds and the other at 25 pounds. The former treated 6,000 bbls. of cracked gasoline per ton of fullers earth, while the lower pressure plant has not successfully refined more than 1,200 to 1,500 bbls. per ton. Further, according to Mandelbaum, a relatively short time of treatment will suffice but excessive contact will not cause overtreatment. The vapors passing to the Gray towers may come directly from the cracking process or from a rerun distillation unit. The towers may be arranged in series or parallel, the series flow being preferable. Where the hydrocarbons come direct from a cracking unit containing a large amount of gas the treating capacity of the adsorbent is quickly depreciated. For this reason, vapor phase cracked gasoline is more conveniently refined after condensation of the distillate by rerunning through the treating plant. Gray plants are so designed that from 5 to 10 per cent of the gasoline produced is condensed in or returned to the treating tower to aid in washing the polymers from the clay. The gasoline portion of the polymer fraction is vaporized and recovered. Color and gum tests of the treated gasoline do not appear to exhibit a gradual depreciation but remain at quite constant levels. At 1,000 or 3,000 or 5,000 bbls. per ton, or more, depending upon the gasoline being treated, they become erratic and the gum rises rapidly. Adsorbents of the type used in Gray treating have, under the conditions maintained for vapor phase refining, little effect on the sulfur compounds present. This makes a supplementary treatment necessary in the case of sulfur-bearing cracked distillates.

Figure 3 (Mandelbaum[1]) shows a flow diagram of the Gray process.

[1]World Petroleum Congress, July 19-25, 1933.

Liquid Phase Clay Treatment

Another interesting commercial development in the treatment of cracked gasoline is that referred to as liquid phase clay treatment or hot clay filtration, wherein the oil undergoing treatment is substantially in liquid phase while in contact with the adsorbent earth or clay employed in the treatment.

Another variation in the use of clay for treating gasoline has been described by C. O. Willson[2] in which a slurry of finely divided clay is introduced into the top of a fractionating column to flow downwardly over pans countercurrent to an ascending stream of vapors undergoing fractionation. The slurry is made in the condensed and finished overhead product. The clay gradually works down through the tower and is removed from the bottom with the reflux into a settling tank, from the bottom of which the wet clay passes to a closed tank heated by still bottoms, the vapors returning to a primary fractionator along with the vapors from the original charge.

The process is used by Imperial Oil Refineries, Ltd., at Sarnia, Ontario, and is claimed to be continuous. If the clay tower shows signs of plugging, the slurry is stopped and only overhead distillate is returned. The clay consumption is 3.5 pounds per barrel of 410° F. endpoint gasoline. Less clay is required for reducing gum than is required for producing color stability.

Several patents referring to this general development are: Roy Cross, U. S. Patents No. 1,654,581 of January 3, 1928 and No. 1,760,585 of May 27, 1930, and Delbridge, U. S. Patent No. 1,682,603. In another process the adsorbent is mixed with the oil and the mixture heated to the appropriate temperature and pressure to obtain the desired treating effect. Patents relative to this are Prutzman No. 1,653,735, Osterstrom, U. S. Patents No. 1,894,323; 1,897,328 and 1,930,597.

Typical Installation

In one typical commercial operation of liquid phase-clay treatment which was studied by the authors the simplified apparatus shown in Figure 4 was employed. The distillate to be treated is heated to the appropriate temperature either directly or by heat exchange or both and introduced into the top of the hot clay filter, passing downwardly through the clay under conditions of temperature pressure to maintain the distillate in substantially liquid phase. The distillate is withdrawn from the bottom of the treating tower (the temperature may be raised if necessary) and is introduced into the fractionator where it is fractionated into the desired endpoint product, which is taken overhead, condensed, and cooled. The bottoms are withdrawn from the fractionator.

The data in Table 23 showing the properties of the pressure distillate undergoing treatment, the gasoline obtained therefrom and the polymers resulting from the treatment were obtained from a typical run in the above described equipment with a throughput of 5,580 bbls. of gasoline per ton of clay.

NOTE. To be continued next week.

[1]Loc. cit.
[2]The Oil and Gas Journal, 31, No. 45, p. 61 (1933).

Gas Welding of Class One Pressure Vessels

By G. W. PLINKE
Director of Research, Henry Vogt Machine Co.

With the adoption of the A.S.M.E. Code for Unfired Pressure Vessels and Power Boilers in 1931, certain standards were established for the physical properties of weld metal in steel plate construction. Three classifications were determined which were originally designated as Class I, Class II and Class III. In Class I the highest weld qualities and most stringent requirements of construction were specified, including stress-relieving of the entire vessel and X-ray examination. The highest operating fiber stress was permitted for this class of construction and no limitations were placed on pressures, temperatures or service conditions. The welding of power boilers was limited to this class of construction.

In the two other classifications the weld quality and construction requirements were somewhat reduced with a reduction in permitted operating fiber stress, and limitations of the pressure, temperature and service conditions.

Early Experiments

During the early attempts to perfect the applications of welding to pressure vessel construction to meet Class I requirements, oxy-acetylene welding was somewhat neglected and its possibilities overlooked. This can probably be accounted for by the fact that most of the construction in this class required thicknesses above which the oxy-acetylene process appeared to be commercially applicable. Then, too, the electric process indicated greater economy and ease of securing the required physical results with multi-layer deposit. The oxy-acetylene process was therefore confined in application to construction equivalent to Class II requirements and no particular attention was paid to developing a procedure to accomplish the physical properties specified in Class I construction.

After several years of experience fabricating welded pressure vessels and power boilers in accordance with Class I construction, using the coated electrode electric arc process with the required special technique of control, we began to make some investigations regarding the possibilities of oxy-acetylene welding. Numerous tests were made to determine the physical properties of the weld metal using regular gas welding procedure. The early results showed that the tensile strength was generally satisfactory but the ductility, particularly on plate thicknesses above one-half inch was not sufficient to meet Class 1 code requirements.

To overcome this difficulty various types of experimental welding grooves were employed. Best results in the heavier plate thicknesses were obtained with the double vee groove, with the U-type groove showing good possibilities in plate thicknesses from 1 inch upward. The U-type groove, however, required a special technique and care had to be exercised to prevent the molten metal from running in front of the puddle and causing laps.

In experimenting with the various types of grooves, it was found that laps and non-fusion along the side walls could be entirely overcome.

Tests and examinations made on welded pressure vessels to ascertain they meet Class One specifications are discussed; the paper being presented before the I.A.A. at Cleveland, Ohio.

Laps were frequently found where the operator changed his welding rod and in starting up again failed to get the parent metal to a sufficiently high temperature to fuse properly with the newly deposited metal. Non-fusion was largely due either to welding at too great a speed and neglecting to notice whether the metal was actually fusing into the side walls, or to the operator's depositing too heavy a layer of weld metal in one pass in the groove.

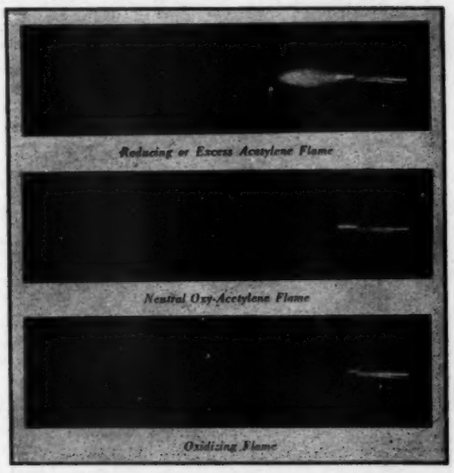


Plate 1—Three types of oxy-acetylene flames

Another variable investigated which seemed to give a very definite improvement in welding was the proper adjustment and maintenance of the type of flame employed. Prior to this investigation a so-called neutral flame had always been used. However, it was found that a reducing or slightly excess acetylene flame materially improved the ductility of the weld metal and such defects as porosity or oxide inclusions were practically eliminated. Proper regulation of the flame was then carefully studied and steps were taken to govern the stability of the flame so as to keep it as nearly constant as practical. Numerous test plates were welded, stress relieved at 1,200° F. and X-rayed. The exographs of these welds showed exceptionally good quality.

The proper type of flame in gas welding causes a protecting gas envelope around the molten metal and prevents the formation of nitrides and oxides in the weld metal due to infiltration of contaminating gases much the same as does the coating on the electrode used in electric arc welding. Plate 1 illustrates types of flames normally used in gas welding. The flame used to produce the high quality welds referred to is a modification of the reducing type flame illustrated.

Tests Reveal Splendid Characteristics

Consideration was also given to the effect of subsequent heat-treatment for grain refinement. Heating above the critical temperature for recrystallization of the weld metal and heat-affected zone naturally gave a considerably finer grain structure. Although the ductility was somewhat improved through this procedure, satisfactory results were obtained without employing it. Oxy-acetylene equipment for locally heat-treating the welds was not available and, furthermore, the problem of controlling distortion caused us for the time being to eliminate this operation.

The final physical tests revealed weld metal which was of high quality and generously met all the requirements of the A.S.M.E. code for Class I welding. An encouraging fact was the consistency of results as shown by repeated tests. Plate 2 is a photograph of actual specimens on completion of test. Plate 3 gives test data which fulfills all code requirements.

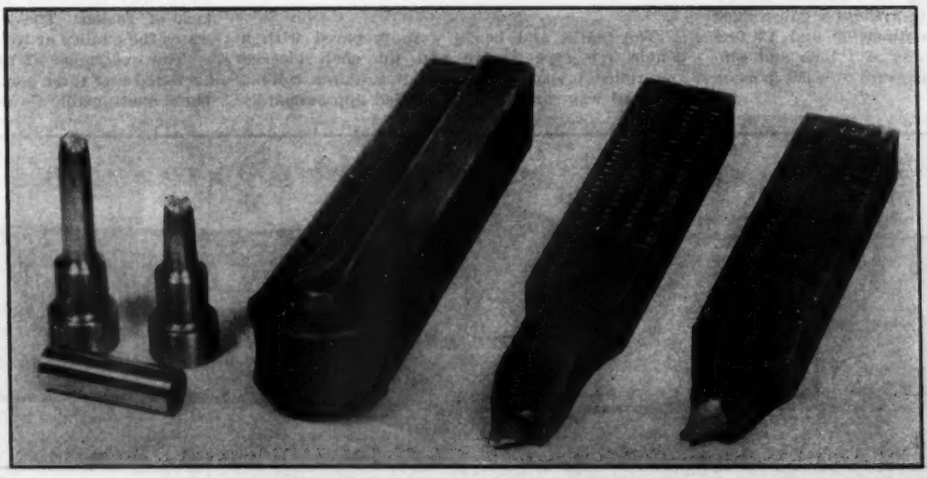


Plate 2—Test specimens complying with A.S.M.E. Class One requirements

It will be noted that the average value for the Charpy impact test was 25.6 foot pounds. This test, taken from 12 different specimens, showed results from 22 up to 32-foot pounds Charpy 10 m.m. square impact specimens. Although the A.S.M.E. boiler code does not require Charpy impact tests, this property of the welded joint was investigated because of its significant value.

To demonstrate further the high quality of weld developed by this

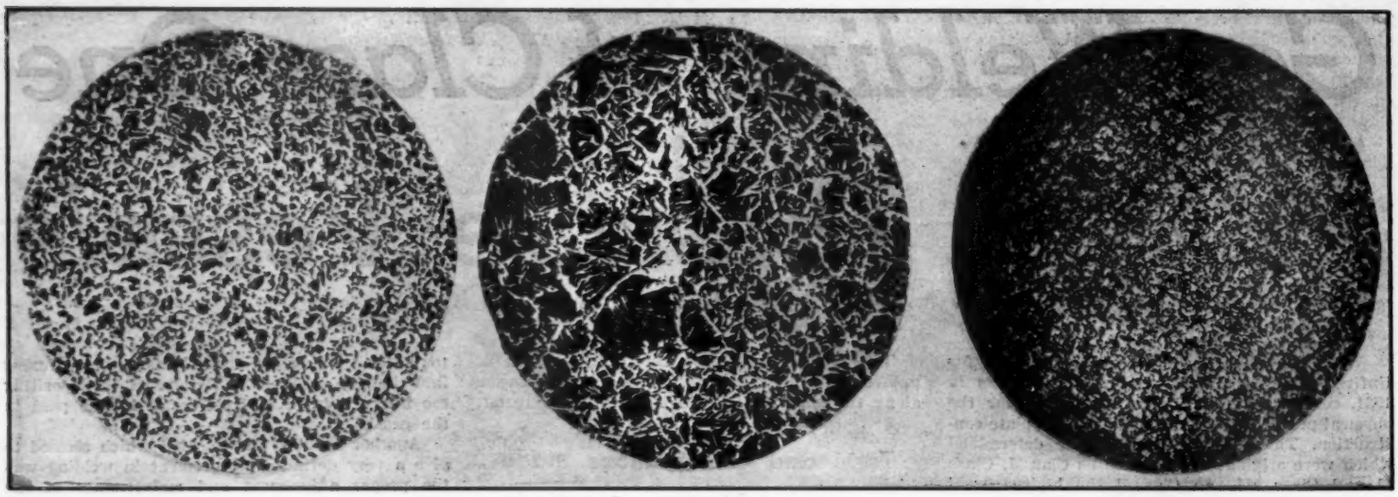


Plate 4—Micrographs of cross section of plate, fusion zone, and weld metal show freedom from defects including laps and non-fusion

gas welding procedure the microstructure of the weld metal, the fusion zone and adjacent to the fusion zone were carefully studied. Freedom from defects including laps and non-fusion is illustrated by the photomicrographs shown on Plate 4.

It is evident that the welding has altered the grain structure somewhat. Some grain growth is apparent adjacent to and along the line of fusion due to the effect of the high temperature which this zone was subjected to for a short time. A study of the physical qualities within this affected zone reveals a slightly higher tensile strength with an insignificant decrease in ductility.

As another check on the comparative quality of the weld metal and the base metal a hardness exploration was made. This covered the unaffected base metal, the heat affected zone, and the weld metal across a typical gas weld after ordinary stress-relieving at 1,200° F. The results of this exploration are indicated in Plate 5. It is interesting to note that there is no important increase in hardness at any point within the weld metal or the heat affected zone as compared with the unaffected base metal. This further illustrates that in effect there is but one continuous piece of metal across the weld rather than two plates connected by a joint of widely dissimilar hardness characteristics.

With the proper method well established for gas welding to produce physical qualities in the weld metal equal to or better than those required by the A.S.M.E. code for Class I work, necessary steps were then taken to qualify a number of welding operators. By following the carefully prescribed technique the welders readily qualified and demonstrated their ability to obtain welds having consistent physical properties with good ductility.

Fabrication Work Started

Shortly after qualifying our welders we received an order to fabricate a Class I gas welded vessel, 5 feet 6 inches in diameter and 13 feet long, having a wall thickness of 1 inch and constructed for a working pressure of 250 pounds per square inch.

PLATE 3—PHYSICAL TEST DATA (GAS WELD)

Specimen number	1	2	3	4	5	6
Reduced section tensile test (lbs. per sq. in) .505" dia.	65,300	57,800	60,000	60,000	59,700	62,300
Butt-weld tensile test (lbs. per sq. in.)	64,200	60,400	60,200	63,900	63,150	66,950
Elongation in 2" (per cent)	20.5	23.5	25.5	26.0	31.0	34.0
Free bend test (elongation in per cent)	42.7	60.4	75.9	56.9	43.8	39.2
Specific gravity	7.90	7.91	7.90	7.86	7.87	7.91

Specimens stress relieved at 1,200° F. for one hour. Average Charpy impact test (ft. lbs.)—25.6. (10 m.m. sq. std. key-hole) (number of specimens—12).

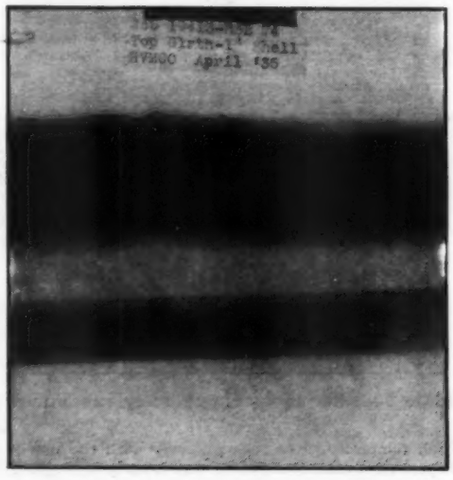


Plate 6—Exograph showing quality of weld

The plates and heads were prepared with a double vee type groove and the shell blocked and rolled preparatory to welding. After rolling, the shell was carefully tack-welded approximately every 12 inches for the full length of the longitudinal seam leaving three-sixteenths inch space in the clear between the edges of the vee type groove. The first layer of weld metal was applied from the inside of the shell, every precaution being taken to see that the welders used the same procedure and technique in welding as was used on the qualification plates. Upon completion of the first layer of weld the seam was inspected and cleaned. Then the second layer of weld was applied of sufficient thickness to bring the height of the reinforcing layer one-eighth inch above the surface of the plate in accordance with code requirements. After this second layer of weld deposit had been applied on the interior of the drum, the welder had the exterior portion of the groove properly prepared by chipping to receive the first outside layer of weld metal. In chipping out and preparing the groove sufficient metal was removed to insure getting down to good, clean metal of the first layer of weld which had been applied inside.

The balance of the groove was then welded, using the same procedure described for the inside of the shell.

Preliminary Inspection by X-Ray

Upon completion of this welded seam very little distortion was observed but to insure extra good roundness and alignment the shell was rerolled. It was then taken to the X-ray machine and the longitudinal seam X-rayed. At this point it was suggested by the insurance inspector that, in addition to the regular X-ray procedure, several exposures be made along the line of fusion at an angle of approximately 45 degrees to the tangent line at the weld to ascertain whether the exograph would show any slight indication of non-fusion. The suggestion was carried out and there was positively not even an indication or lack of fusion. The exograph in Plate 6 illustrates the quality of weld along this line of fusion.

The exographs of the longitudinal seam were inspected and three small defects were questioned. These questionable flaws were located on the seam

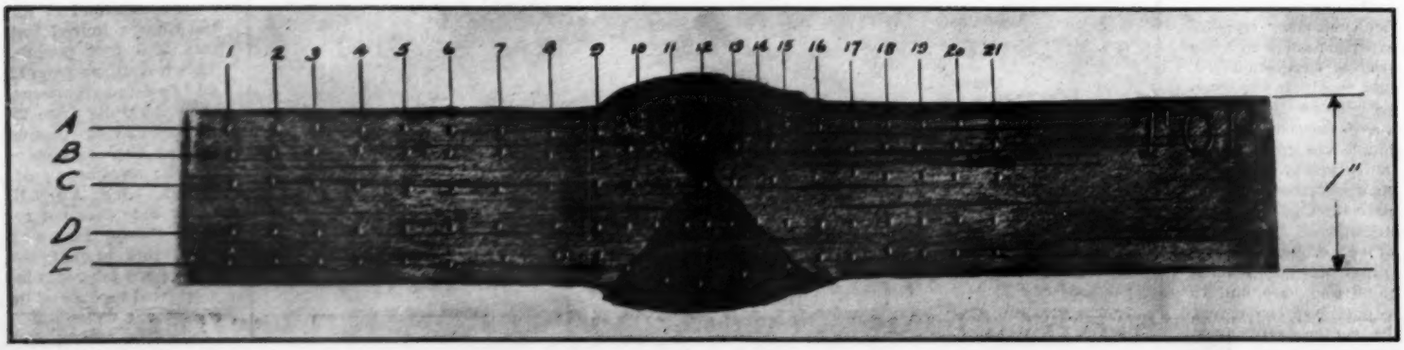


Plate 5—Oxy-acetylene welded specimen showing Rockwell hardness, fusion zone, and weld. Stress relieved at 1,200° F. for one hour

Nordstrom Valves on gas trap lines

EMCO Orifice Meter on drilling lease

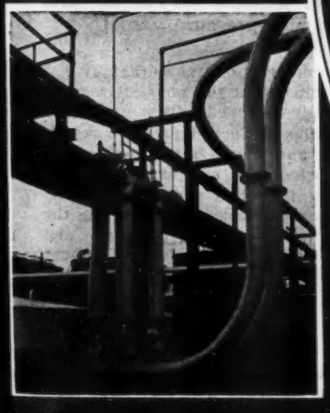
Industrial installation EMCO Large Capacity Pressed Steel Meters

EMCO High and Low Pressure Balanced Valve Regulators and Nordstrom Valves at town border station

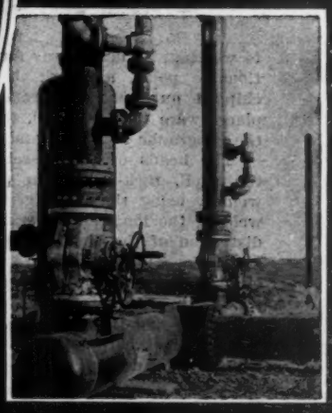
EMCO Low Pressure Balanced Valve Regulators and EMCO Service Regulators, controlling city distribution line

EMCO

NORDSTROM



Nordstrom Valves on refinery gas to gas plant lines



Nordstrom Valves on lines at Mixing Station

EMCO and Nordstrom laboratories have given the oil and gas industry many noteworthy innovations in equipment for measurement and control. It is our constant endeavor to produce only quality products whose dependability is best proven by their long life with freedom from maintenance.

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and the weld metal chipped out. At two of these points small defects were found, one consisting of a concentrated area of porosity near the outside surface of the outer layer of weld and the other a small area of non-fusion in the center of the seam. The latter defect was undoubtedly due to failure of the operator to chip out sufficient metal from the first applied layer of weld in preparing the groove from the outside preparatory

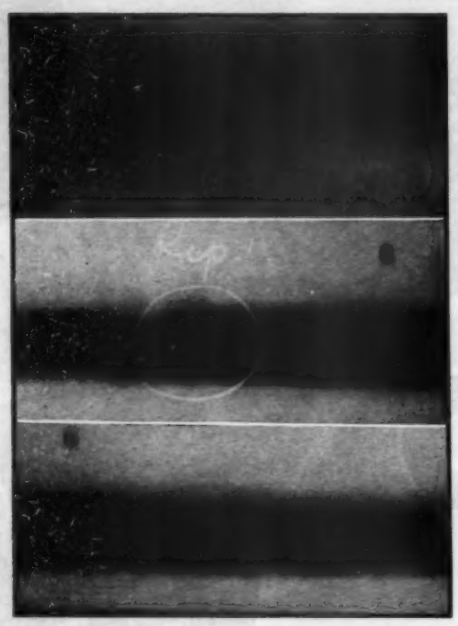


Plate 7—Comparative exographs. Top—Permissible defects under A.S.M.E. code. Middle—Type defect found at a few points. Bottom—Typical weld without defects

to welding. No defect was found at the third questionable point, although the weld metal was chipped out entirely through the weld. These places were then repaired, the welds X-rayed and the exographs inspected and approved.

The heads of the vessel were then fitted to the shell, tack-welded in place and the seams welded, using the same general procedure as in welding the longitudinal seam. We expected some distortion of the shell during the welding of the girth seams but due either to the method of procedure or to the thickness and rigidity of the plate there was little or no distortion. Both seams were then X-rayed and the exographs inspected. Very few defects were found and those found were only of a minor nature. These were chipped out, repaired and again X-rayed. In Plate 7 an interesting comparison is shown in the three exographs. The top exograph is typical of the permissible defects under A.S.M.E. code requirements. This exograph was obtained from the A.S.M.E. Boiler Code Committee. The middle exograph shows the extent of the defects found in the vessel at a few points. The third or bottom exograph shows a typical weld without defects.

The manhead and the nozzles were then fitted and welded to the vessel. The vessel was then stress-relieved at 1,200° F. in accordance with the A.S.M.E. code requirements. Upon completion of the stress-relieving treatment, the vessal was given the prescribed hydrostatic test. Plates 8 and 9 show the vessel under construction.

Since this was the first gas welded vessel constructed to meet Class I requirements of the A.S.M.E. Unfired Pressure Vessel Code, a most rigid system of inspection and control of all the details of construction, as well as the inspection of the exographs of the welded seams, was maintained at all times. Commercial standards of quality for Class I construction per A.S.M.E. code would not have required the removal and rewelding of any of the spots located. The repairs which were made were only of very minor extent and were made only to satisfy our own rigid requirements.

The idea has been quite prevalent among fabricators of pressure vessels that gas welding causes considerable distortion. However, this vessel showed practically no distortion. If proper care is exerted in fitting up, and if the shell is rerolled before applying the heads, there should not be a great amount of distortion particularly when the shell thickness is three-fourths inch and heavier.

Costs Can Be Lowered

The cost of fabricating this vessel was considerably in excess of the cost of an equivalent vessel fabricated by electric welding. The first cost of any new process is unavoidably high due to lack of facilities and experience. A personnel for this type of work had to be established, welding operators trained and qualified and a thorough procedure control developed. As more gas welded vessels are fabricated to meet Class I requirements, the cost will naturally be reduced.

For example, single flame hand torches were used throughout in the welding of this vessel. This was necessary as no technique or procedure had been established and worked out for application to heavy plate of the multi-flame torches or semi-automatic equipment with gravity fed welding rods, such as is being employed on pipe and light plate. The development of such equipment for application to heavy plate welding will undoubtedly materially reduce the cost of oxyacetylene welding. With this equipment the heat required for preparing the base metal and welding rod and for maintaining the required welding puddle can be produced and controlled by individual tips, each performing its required function. The separate control of the heat and the deposition of the welding rod in gas welding appears to offer a definite advantage over electric welding where this flexibility of control is not present. This should be particularly important in future developments leading toward the more rapid deposition of weld metal. Full mechanization of the application of the oxyacetylene process also seems to have some very definite possibilities.

There are two other factors which seem to favor further developments of oxyacetylene welding for Class I construction, now that it has been well demonstrated that the physical requirements may be readily complied with.

Plate 9—Operator welding the outside girth seam of a high-pressure vessel

In the gas welding of Class I pressure vessels the exographs will and should reveal welds that are practically flawless and chipping out of defects and repairing of welds should be largely eliminated. Repairing of welded seams during the course of construction is a costly procedure and its elimination would materially reduce the cost of welded fabrication.

Because of the lower temperatures gradient established between the base metal and weld metal in gas welding, residual stresses are not as highly concentrated as in electric welding. Although Class I vessels are stress-relieved to relieve such stress concentration, this factor may at times require special procedure for electric weld construction which would not be required were gas welding employed.

As this was our first Class I gas welded vessel to be X-rayed and tested in accordance with the A.S.M.E. code no definite speeds had been developed in our technique so as to place the drum on power rollers in order to revolve it during welding. Therefore, we placed it on ordinary rollers and

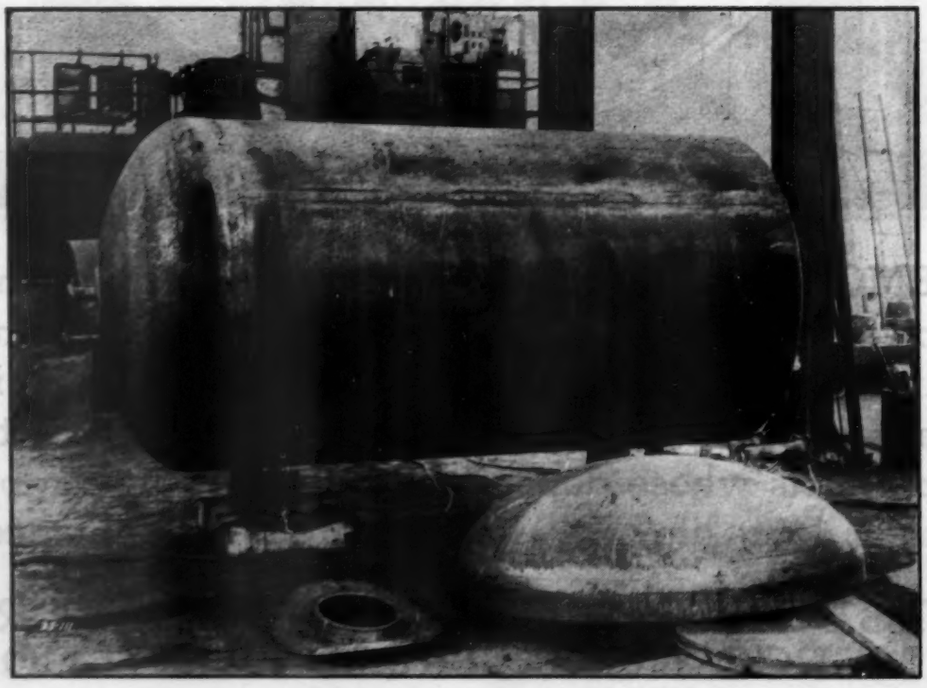


Plate 8—View of large gas welded pressure vessel under construction

rolled it by hand to take care of positioning it for the welding operator while he welded the girth seams.

We have since conducted some experimental work on speeds for gas welding with the work placed on mechanically operated rollers and predict that important time savings will be made in welding girth seams of vessels.

Benefits of Envelope Flame

Since it has been learned that practically the same protecting atmosphere surrounding the molten puddle of weld metal can be obtained with the proper gas flame as is now obtained with the correct coating on an electrode in electric arc welding, a new field of development for improving gas welding technique appears feasible. For some time it has been the aim and hope of manufacturers of welded products as well as electrode producers to develop a satisfactory automatic electric welding machine using covered electrodes which would consistently produce Class I welding resulting in a saving in time and cost of materials. Some very practical machines have been developed, but none are acceptable from the standpoint of economy and consistency of results as required in commercial production.

With the knowledge gained from the investigation of atmospheres developed by gas flames, it seems that in the near future an automatic welding machine will be developed which will combine and make use of the good qualities found in both the gas and electric processes. With a combination of these two processes, it is entirely feasible that an automatic machine can be built to use a coil of bare wire electrode which will make the welding operation continuous while the necessary atmosphere, so essential to good quality welding will be secured through the application of gases from some combination of oxygen and acetylene or other available gases. When such a machine is perfected welding costs will be greatly reduced and an important forward step made in the art of uniting metals for industrial purposes.

Methods of Testing Insulating Oils Subject of Wide Study

As a result of a resolution passed by the Chamber of Government Delegates at the St. Louis Electrical Congress in 1904 the International Electrotechnical Commission was formed in 1906, its object being to provide the permanent machinery whereby any international problem of standardization in the electrical field might be given continuous study. In 1924 an advisory committee on insulating oils was appointed to prepare an international method for acceptance tests on insulating oils as well as to define suitable research tests for the examination of oils from different sources. An abstract of some of the work done since the formation of this committee and a survey of its present position is given here, the original article being prepared by E. A. Evans and appearing in The Petroleum Times.

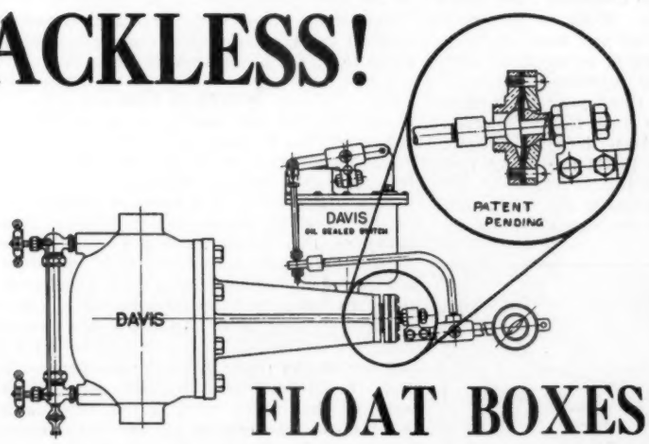
Since it was of primary importance that a systematic study of the various factors having an influence on the methods of ageing oils be made, it was decided that it would be necessary to widen the scope of study regarding the mechanism of the reactions of ageing. The conditions of experiment have a very great influence on the qualitative course of the oxidation reactions, therefore, it was necessary to be able to make a judicious choice among them in order to reproduce those modes of artificial ageing which corresponded more or less to the conditions in actual practice.

It was agreed that Pennsylvanian, Texan, Venezuelan and Russian oils of suitable viscosity would be refined into the following three grades: weakly refined, moderately refined and highly (over) refined. The moderately refined oil would be approximately equivalent to the A.S.E.A. (Sweden) specification and the highly-refined oil would be equivalent to the B. S. I. Class "A" transformer oil. A report dealing with the chemical aspect and the results obtained from research on Venezuelan oils which was presented at the Hague meeting in 1935 by Andersen (A.S.E.A. Sweden) was reviewed. According to Andersen's findings, the amount of soluble sludge produced in the transformer when using the moderately-refined and the highly-refined oils were equal at 12 months' service, but after this stage there was much more soluble sludge produced from the highly-refined oil than from the moderately-refined oils, the soluble sludge apparently being the forerunner of the insoluble sludge. In the case of the insoluble sludge it was higher with the highly-refined oil than with the moderately-refined oil after 24 hours. The production of acid was said to be approximately the same with the three oils up to about 10 months. After this period the generation of acid in the highly-refined oil was found to be greater than in the other two grades of oil.

In his discussion of the work done by Weiss, the author states that Weiss reviewed a variety of tests to see whether or not any of them could be applied with greater usefulness to the differentiation of transformer oils. "He placed some reliance on the diferences observed in the distillation curves of different oils indicating that the oils are different in constitution. He evoked some discussion on oxygen absorption, but it is possible that he may not have fully realized that there is an equilibrum between the oxygen available and the oxygen absorbed." The author also states that Weiss strongly advocated the inclusion of a saponification value, particularly for oils which had been used, on the ground that products which are saponifiable will give rise to electric losses in the transformer.

The temperature at which the study of the behavior of oils in transformers was to be made was discussed and the effect of using either air or oxygen as the oxidizing medium received consideration. In conclusion the author stated that the case for the B.S.I. Class "A" oil was less strong and that the reasons for it were slowly becoming revealed, and that while B.S.I. Class "B" oil was not suggested as the proper insulating oil, an intermediate oil between "A" and "B" might be used.

PACKLESS!



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Louisiana Compressor Plant Revised to Use Higher Operating Pressures

By F. L. SINGLETON

The Union Sulphur Co.'s original equipment used for repressuring, in the Gillis field of Calcasieu Parish, Louisiana, is being revised from using one three-stage compression unit to three single-stage units. Upon completion of the work the capacity of the plant will be increased from 1,400,000 cubic feet of gas daily at present to one capable of handling up to 4,500,000 cubic feet.

The design of the original plant was very similar to that of the company's repressuring unit now in operation in the East Hackberry field which consists of three 100-horsepower engines with the following compressor cylinders: The first compressor equipped with an 8"x20" compressor cylinder picks up the field gas at a pressure of 50 pounds and discharges it into the suction side of the second compressor at 220 pounds. The second compressor equipped with a 5"x20" cylinder, picks up the gas at this pressure and boosts it to 775 pounds. The third unit, equipped with a 4"x20" cylinder, compresses the gas to 2,360 pounds.

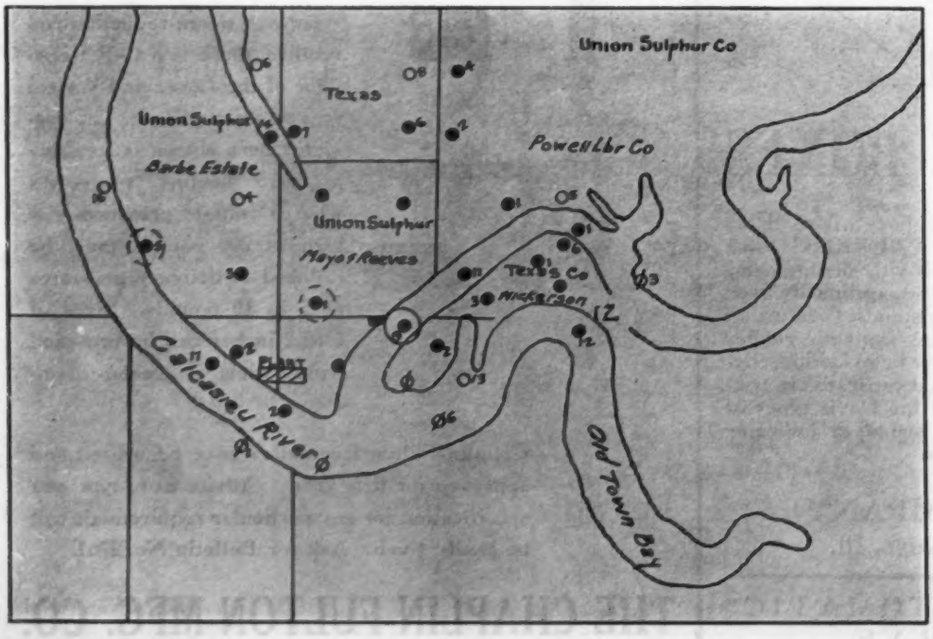
The only difference in the original setup at the Gillis plant is that the third engine was equipped with a 3½"20" compressor cylinder and the intake pressure which was 100 pounds, was discharged through the same stages of compression at 2,650 pounds. This is one of the highest operating pressures yet developed for this type of work.

By changing the size of the cylinders on each engine to a 3½"x20" cylinder capable of boosting the intake pressure of 975 pounds to 2,650 pounds the company has tripled its old method of repressuring without the addition of new engines.

The 6,700-foot sand at Gillis is believed to be one of the deepest producing zones to be successfully repressured. It overlies a considerable area in a uniform body and is highly porous which makes it ideal for this work. The gas is being injected into only one well. It is No. 9 State, situated on the bank of the Calcasieu River near the apex of the structure. Wells in this area are comparatively free of oil and have shown a rather high gas-oil ratio which makes them suitable for serving as key or injection wells.

Close-up of header system at the Union Sulphur Co.'s repressuring plant in the Gillis field

While Gillis is in its third year of production it is still considered a flush field. However, enough development has been done to indicate that its natural producing limits are fairly well defined. Thus, the future life of the field depends on the proper utilization of the field's natural gas energy. Although the response from repressuring operations has not been readily revealed in the daily production of the company's 18 completed wells, these wells have maintained their original gas pressures since completion which assures them a long or flowing life.



Plat of the Gillis field, Calcasieu Parish, Louisiana, showing location of the Union Sulphur Co.'s repressuring plant, injection well, indicated by a full circle, and repressuring wells

Source of Gas

Gas for the repressuring plant is supplied by two wells, No. 1 Mayo Reeves and No. 5 Barbee. The oil and gas is conducted from the christmas tree through a 1,000-pound high-pressure separator and by-passed to a low-pressure 125-pound separator. After this the gas is taken to the 2½-inch gathering line where a back pressure valve is regulated to maintain a consistent pressure of 950 pounds. The remaining gas is relieved by the back pressure valve and by-passed into the air by two vent lines. The back pressure valve insures that the intake pressure at the plant will not exceed the capacity of the compressor, however, if the back pressure valve should fail to work another relief valve and a bursting head is set up to take care of the excessive pressures.

A specially designed hookup has been made with the christmas tree whereby if for some reason the pressure on the well should decline below the normal amount required for repressuring, the high or low pressure separator could be moved to another location without stopping the flow of the well. Due to occasional floods the christmas tree and the two separators are mounted on an elevated wooden platform about 10 feet above the ground.

The setup at the plant is very similar to that used at the well. The gas is passed to the plant through a 2½-inch line to a header where it is converged through two more back pressure relief valves set at 950 pounds. It is then passed through a flow meter into a 1,000-pound separator where it is taken to a suction header to each engine with an intake pressure of 950 pounds. The intake pressure is boosted to 2,650 pounds and is passed into the discharged header to the injection well through a four-way loop expansion joint which takes care of expansion in the discharge lines.

Water for the cooling system is pumped from the Calcasieu River to a 500-bbl. elevated tank

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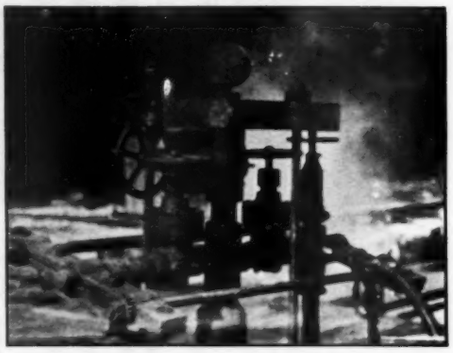
and by gravity feed is run through the engines. From there it goes to a concrete sump pit from which it is picked up by an electrically driven pump and fed over the cooling tower.

Four additional inlets have been constructed at the header station to take care of four more wells should the pressure fall on the two wells now used.

Every precaution has been taken to prevent the engines from getting the field gas at a pressure exceeding 950 pounds. Besides the two men-



Hookup at Union's No. 9 State showing injection of gas through the casing

tioned relief valves, two bursting heads are constructed on a welded steel frame by means of which the incoming field's gas may be popped off in case the back pressure valves fail to function.

The surface arrangements at the injection well consists of a few connections. The gas is passed into the casing by way of a heavy 2-inch valve, 3-inch cross and swage nipple on top of the 6⅝-inch production string. The christmas tree arrangement at the injection well is practically the same as that used on producing wells.

Plant Description

A structural steel metal covered building houses the three 100-horsepower Clark engines comprising the plant. The building is well lighted and ventilated by means of 10 windows and with six sliding doors, three at the front and three at the

Separator hookup used by Union on the No. 1 Mayo-Reeves in Calcasieu Parish

back. Three large ventilators are located at the peak of the roof which provides ample outlet for fumes and bad air. The interior of the plant is kept spotlessly clean and freshly painted.

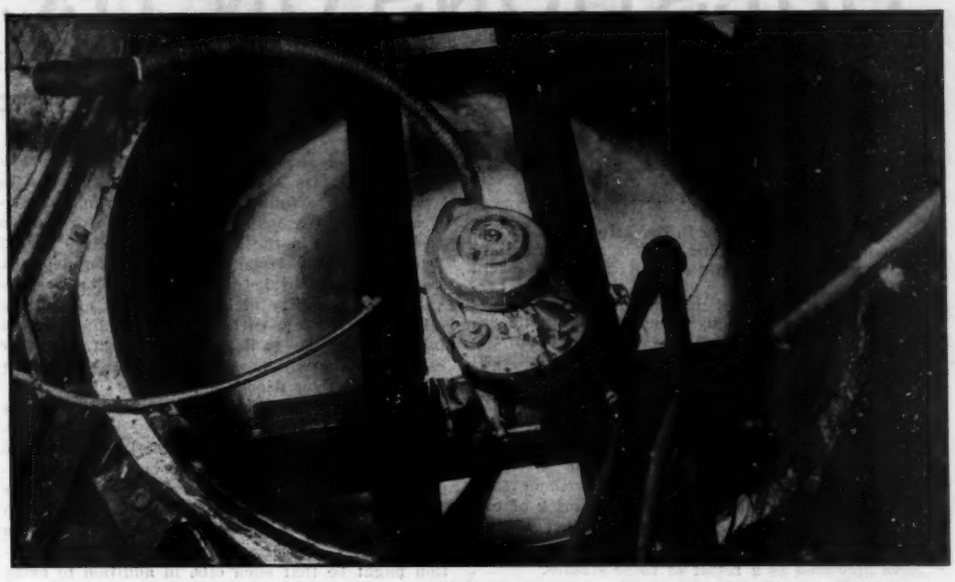
Located at one end of the plant is a control board serving as a guide to the operators of pressure conditions at various points about the plant.

The repressuring plant at Gillis is the second to be put into operation in Coastal Louisiana by the Union Sulphur Co. and was installed under the supervision of Pete Styner, engineer for the company. The company's plant at the East Hackberry field has been successfully operated about two years and about 1,200,000 feet of gas is being restored daily to the 6,000-foot zone.

OPERATING IDEAS

Auto Engine for Water Pump

To furnish power for a small water pump used in supplying water to a drilling rig located in north-central Texas an old Model T Ford was stripped and rigged up as shown. A fly wheel was attached to the drive shaft and is connected to the pulley of the pump through a belt. Water for cooling the Ford engine is piped back to the radiator from the water pump, the main line leading to a nearby creek from which water is taken for the drilling rig boilers.

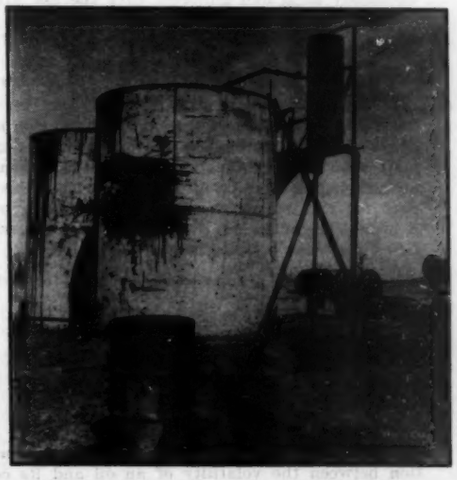


Outboard Motor Used to Mix Oils in Compounding Plant

The accompanying photograph illustrates one use to which outboard motors might be adapted; that of mixing oil in a 250-gallon vat. As shown, supports were built across the top of the kettle to which the motor was clamped. The entire exhaust and fuel line were removed and in place of the exhaust line an elbow was brazed to a flexible tubing and placed at the exhaust chamber of the motor. The exhaust was then piped to the outside of the building where an exhaust was placed. In place of the water line, an 1/8" pipe fitting was substituted into the water jacket and connected to city water pipes, the discharge water being run into a sewer. The motor is operated at about 2,500 r.p.m. which gives about 1,600 propeller r.p.m. This installation has been in operation about one year.

Temporary Steel Loading Rack Offers Many Safety Factors

The new erector type of steel loading rack shown in the photograph may serve to portray the advances that have been made by the oil industry in so far as safety, more durable materials and portability are concerned. This loading rack which was installed by a large oil company has a great number of advantages and safety factors over the old wood rack. A study of the picture reveals many of the safety factors offered by this rack; such as hand rails on the steel rack, crossing drops to cars from the rack, lights to prevent tripping or other accidents while working on the rack at night and raised identations on the rack deck to prevent slipping. The steel rack is of bolted construction so that it can easily be dismantled, moved to another site and re-erected. Or if there is no further need for it in this capacity, the walkways and stairways can be used for walkways or for short bridges.



Economical Water Bleeder

To supply the need for a cheaply constructed, home-made "gun barrel" type water bleeder one producing company designed the one shown in the accompanying photograph for use on a 2-well lease in Cook County, Texas, to siphon off salt water from oil produced by the wells. Two second-hand steel drums were welded together for the oil-water receiver, the line from the producing wells emptying into the container. Water is syphoned off through a line connected to the barrels at a point near the bottom and is drained into salt water pit.

QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Conradson Carbon Residues May Reflect Type of Lube Stocks

Can you give us any information on the Conradson Carbon Residue which will correlate lubricating oils manufactured from different base crudes? Can one predict the type of carbon deposits formed in air compressors and internal combustion engine cylinders by the examination of the material remaining after the residue test? What is the difference between the carbon residue of say a paraffin and asphalt base oil regarding the quantity and texture—hard, soft, fluffy, etc.—E. F. G.

Numerous investigations have shown that the several types of lubricating oils form different quantities of carbon when reduced without free access of air. One of the important series of experiments on the subject was conducted at the Mellon Institute, Pittsburgh, Pa. Several papers have appeared as a result of these studies.

In the paper by Livingstone, Marley and Gruse, published in 1926, analyses were made of Pennsylvania oils, high and low carbon content, Mid-Continent blended oils, Gulf Coast oils, and Mid-Continent distilled oils. Upon examining the carbon deposits as formed on the pistons and heads, it was indicated that for carbon produced at low temperature material from the Coastal oils contained less oily matter than the carbons from the Pennsylvania oils.

"In all the runs made, no matter what the conditions, the Coastal carbon was, in general, powdery and friable over the hot metal areas and only slightly more coherent over the cooler areas. The Pennsylvania carbon, on the other hand, was extremely hard and adherent over the hot areas, and sticky and asphaltic in appearance over the cooler areas. It was the general experience that the Coastal carbon could be removed from the motor much more easily than the Pennsylvania carbon.

"It has been suggested that the Conradson carbon residue of lubricating oils offers an approximate measure of the tendency to deposit carbon in an automobile motor, but little experimental support for this supposition has hitherto been published. The following comparison, however, confirms this view:

No.	Oil	Carbon value (cor.)	Conradson carbon residue
1.	Pennsylvania	7.7	0.51
2.	Mid-Continent blend	8.8	3.64
3.	Gulf Coast	4.0	3.12
4.	Pennsylvania	7.5	0.44
5.	Mid-Continent distilled	5.4	0.26
6.	Gulf Coast	3.8	0.03

"The authors believe there is a close connection between the volatility of an oil and its carbon-depositing tendency."

This work was continued, experimenting with 18 coaches, and the results reported in 1929. The summarized data are given in the table:

SUMMARY OF DATA FROM ROAD TESTS

Oil—	No. of coaches	Total miles	Qts. oil consumed	Ports cleaned	Average miles per gal. oil	Average miles per port clean-out
High-carbon paraffinic	6	51,596	2,178	164	94.6	314.0
Low-carbon paraffinic	6	60,540	2,197	151	110.0	401.0
Naphthenic	6	59,030	2,401	38	98.5	1,556.0

"Such conclusions as may be drawn, while tentative, are clear. The carbon residue test is a fairly reliable index of carbon deposition in a poppet-valve engine, other conditions being rigidly the same. Of 17 oils listed, 16 give fair agreement with a straight-line relationship to carbon residue test. Its success is most conspicuous in evaluating paraffinic oils. The setting, in oil specifications, of reasonable upper limits for carbon residue values in the same viscosity class should protect the user from excessive carbon deposits, because a paraffinic oil of low carbon residue value must be very highly refined; a naphthenic oil, always of low carbon residue value, has an inherent tendency to low carbon deposit. In either case the user will be protecting himself against abnormal carbon deposition.

"For sleeve-valve engines the situation seems to be different. A paraffinic oil of very low carbon residue value was only slightly better as to carbon deposits than one of normal carbon residue value, and both were very strikingly inferior to a naphthenic oil. The characterizing of such a naphthenic oil seems possible best by a vacuum distillation specification. A tentative recommendation might be that such oils, in addition to being otherwise suitable, should show at least 90 per cent volatility distilled under 10 mm. pressure in a test similar to that described above and should boil between suitable limits of liquid temperature, these to be set for the particular equipment in mind. For the coach engines used in this work these limits might be between approximately 550° and 700° F. (at 10 mm. pressure). Probably 5 per cent could be allowed to distill over below the lower temperature limit."

References: Livingstone and Gruse, J. Soc. Automotive Eng., 20, 688, 1927. Livingstone, Marley, and Gruse, Ind. Eng. Chem., 18, 502, 1926. Livingstone, Marley, and Gruse, J. Soc. Automotive Eng., 18, 607, 1926. Livingstone and Gruse, Ind. Eng. Chem., 21, 904, 1929.

SPECIFICATIONS

In response to requests specifications for at least one petroleum product will be given here each week.—Editor.

U. S. Government Motor Gasoline

General requirement.—Shall be suitable fuel in internal combustion engines.

Gravity, odor and color	none required
Copper corrosion test	negative
Distillation	
Evaporated	
10% at 167°F.	
50 at 284	(Min. at each temp.)
90 at 392	
Residue max.	2 per cent
Sulfur max	0.1 per cent
Vapor pressure at 100° F.	12 lbs.

Right is reserved to reject during winter months (D.J.F.M.), in localities where mean January temperature is under 27° F., material showing less than 10 per cent at 149° F. In localities where mean January temperatures is above 27°, vapor pressure shall not exceed 10 pounds at 100°. During summer months (J.J.A.S.) it shall not exceed 8 pounds.

No octane number is mentioned but a reasonable rating may be required, under the general requirement clause.

Reference: Additional information may be found in Federal Standard Stock Catalog, Sec. 4, Part 5, VV-G-101. Sold by Superintendent of Documents, Washington, D. C. Price 5 cents.

Commercial 90 Per Cent Benzol and A.S.T.M. Specifications

What is the composition of the product known as 90 per cent benzol? If there are standard specifications for commercial benzol could you furnish them?—S. B. A.

There are three grades of benzene that may be obtained under the name benzol. These are the pure product, also known as one degree benzene, which should boil not over one degree higher than the boiling point (80° C.), of the chemically pure substance; commercial or 90 per cent benzene, meaning the quantity distilling below 100° C.; and the crude benzene, which may be a product of indefinite composition.

The specifications for industrial 90 per cent benzene (benzol) used for inspection purpose are those of the American Society for Testing Materials. These are:

A.S.T.M. SPECIFICATIONS FOR BENZOL

Specific gravity 20/20 C.	0.868 to 0.882
Color	water white
Distillation range:	
Below 70°C.	none
Below 100°C.	not less than 93%
Above 122°C.	none
Non-volatile matter	not over 0.005/ml.
Odor	characteristic
Water	not enough to show turbidity
Acidity	none
Sulfur as H_2S and SO_2	none
Corrosion:	
Copper test	no iridescence
Mercury test	no discoloration

Corrosion Mercury Test.—A 10 ml. sample of the solvent shall be shaken with 1 ml. clean mercury in a stoppered test tube, and allowed to stand 15 minutes. The mercury shall show no discoloration when compared with a blank run with distilled water.

Reference: A.S.T.M. Tent. Stands., 1934, p. 571.

Gumbrin Is Treating Clay Found in the Caucasus

I have noticed a brief mention of gumbrin, which appears to be an air-dried clay, for the treating of light distillates. Can you tell me where this material may be obtained and anything about its value?—H. G. Y.

There are two brief abstracts to gumbrin in the recent literature; the first in Chemical Abstracts and the second in the Journal of the Institution of Petroleum Technologists. These are:

Chemical Abstracts, 26, January 10, 1932, page 288: "Refining with Clays," by L. Gukhman. Azerbaidzhanskoe Neftyanoe Khozyaistvo 1931, No. 6, 35-6. "Natural clays are best adapted for refining distillates and activated clays for refining residual oils. Georgia (Caucasus) has deposits of gumbrin, which at a treating temperature of 300° C. and above, is equal in efficiency to Floridin, and of Ascanit, which is easily activated by sulfuric acid."

J. Inst. Pet. Tech., November, 1935, page 416A: "Treatment of Liquid-Phase Cracked Gasoline," by A. F. Dudenko. Azerb. Neft. Khoz., 1934, 6, 96-101. "Among all the refining methods tried with the liquid-phase cracked gasoline acid, zinc chloride, gumbrin, and acid plus doctor, best results were obtained with gumbrin, the gasoline receiving a vapor-phase treatment. Thus, after two and one-half months' storage the zinc chloride and the gumbrin-treated gasoline did not show any precipitate. The oxidation test by the Ramsay bomb method showed that the former gasoline was very unstable towards oxidation, although its color was very stable."

PROBLEMS FROM READERS

Edited by T. F. Smiley

Water-Flooding Practiced Secretly in Kansas Fields for 20 Years

I always supposed the water-flooding method of recovering oil was practiced in the Bradford field only, but I was told recently this method had been used in Kansas for a long time. I would like to know to what extent it has been done and what success has been met. It seems queer to me that so little has been written about water-flooding in the West if it is true the method has been in operation for any considerable length of time.—G. R. E.

The explanation of why little or nothing was written about water-flooding in Kansas is not difficult to find. In the first place the intentional introduction of water to an oil sand was looked upon with disapproval by the industry at large. Water was something to keep out of the sand, not something to put into it. In the second place it was a violation of a Kansas law purposely to admit water to an oil sand. As a matter of fact so-called "natural floods," caused by leaking casing, have been taken advantage of in Chautauqua County, Kansas, for more than 20 years. It is not at all unlikely the same thing has been done in other areas.

In the spring of 1935 the Kansas legislature passed a law legalizing the use of water in repressuring and the disposal of waste waters by running them into suitable underground formations. This removed the need for secrecy regarding water-floods. With the approval of water-flooding by the oil industry, permits to use the method are granted now in Oklahoma under certain conditions.

Benefits derived from the water-flood accidentally created by leaking casing in Kansas led to development of a procedure which involved slitting casing opposite water sands in edge wells, estimating the direction and progress of the water thus admitted, drilling of new oil wells to keep abreast of the flood and eventually the conversion of these wells to water wells after the flood had passed them. In most cases this procedure utilized salt water in contrast with methods used in the Bradford field. Gratifying results have been achieved in some cases, notwithstanding the crudity of the method.

In 1931 a systematic water-flood was started (the first systematic one in the Mid-Continent) in the Alluwe field of Rogers County, Oklahoma, as an experiment by one of the large oil companies. The project may still be regarded as in an experimental stage. In The Oil and Gas Journal of October 24, 1935, you will find an article by George H. Fancher and Kenneth B. Barnes which provides a much broader and detailed discussion.

Can't Hope to Increase Recovery in These Wells Without Some Cost

I have a working interest in a lease in Wood County, West Virginia, on which there are two Berea wells and six Second Cow Run wells left pumping. The Cow Run wells are down to about 3 bbls. a week for all six. I am interested in finding out whether there is any way to bring the production back to a paying basis. The wells, which are 1,100 feet deep and came in with an initial of 5 to 10 bbls., are 15 to 20 years old. The sand is 8 to 15 feet thick. The wells are in a circle, with one well in the center, but repressuring would be prohibitive. I am told it does not pay to shoot and clean out these Cow Run wells after they have been producing several years.—J. C. L.

There seems to be little in the way of advice possible here, as you indicate that you cannot afford to spend much money to recondition these wells, and it is certain that if more oil is to be obtained it will be necessary to spend from $1,000 to $3,000 an acre to get the increased production. You do not state how much oil has been recovered from this formation, which makes it impossible for engineers to form a well-rounded opinion as to whether the formation still contains any appreciable quantity of oil. It seems likely that it does not contain much mobile oil because it is probable that all the oil that remains is the residue of the former oil deposits, and this is gradually seeping into the wells so that you are able to get about 3 bbls. a week from the six wells.

Because you state the wells are located in a circle with one well in the center, it is suggested that water-flooding might be applied, but this is not recommended unless you are prepared to spend not less than $1,000 an acre and can be assured that there is enough oil left in the formation to return this money plus profit. To find out whether there is enough oil remaining would require getting representative samples of the oil sand, perhaps by the drilling of another well and carefully coring the stratums in which oil has been found.

Readers are invited to send questions relating to drilling, producing and transporting operations. These questions will be referred to persons capable of answering authoritatively. The names of those writing for information will be held confidential, initials only being published. This department cannot undertake to answer questions involving royalty or other investments, patents or intricate formulas or questions which should be submitted to consulting engineers, geologists or lawyers.

WHY THEY CALLED IT *Peptizer*

On first thought it might be supposed "peptizer" meant a college cheer leader or a digestive tablet. And as a matter of fact it really does have the same linguistic ancestry as "peptics," the science of digestion, and "pepsin," familiar to after-dinner gum-chewers. When it is desired to break up and disperse the solids in drilling mud this may be done by mechanical, electrical or chemical means. When done chemically the procedure is called peptization and the chemical used is called a peptizer. These words were introduced into colloidal chemistry before much was known about the chemical aspects of drilling fluids. They originally stood for processes analogous to the action of pepsin on proteins.

Lifting Costs Reduced by Combining Submersible Pump and Gas-Lift

I would like to get whatever information you can give me regarding a new method of producing deep wells which I understand consists of using both the gas-lift and an electric pump placed at or near the bottom of the hole. I believe the system is in use in the Seminole field of Oklahoma. I would like to know what equipment is used and what sort of success has been met.—R. T. O.

The dual-lift method to which you refer was put into successful use in the Oklahoma City field. It consists of an ingenious combination of a submersible centrifugal electric pump and the gas-lift. A 92-stage centrifugal pump powered by a 97½ horsepower motor is employed. The motors are two-pole, 60 cycle, 440 to 880 volts and 3,600 r.p.m.

A hook-wall packer is run on 2½-inch external upset tubing to about 5,500 feet and electric pump is suspended from this packer on 2-inch external upset tubing and is set as close to bottom as possible. The 2½-inch tubing is perforated immediately above the packer so that the oil pumped from the bottom of the hole passes into the annular space and is lifted to the surface by gas injected through 2½-inch tubing.

Multiple ring hook-wall packers are used, to which are applied two special adapters for permitting the electrical cable which is run down the outside the 2½-inch tubing and securely clamped to it, to enter the inside of the packer at the top and re-enter the annular space at the bottom of the packer.

As the packer is already threaded with the power cable for the pump at the time it is pulled into the derrick, it is necessary to have some means of making this connection without turning the packer. This is accomplished by use of a combination coupling with right-hand threads to be screwed on the tubing joint in the tubing spider and left-hand threads to fit the special adapter on the bottom of the packer. The connection is made by aligning the coupling and packer with the tubing joint and turning the special coupling which makes up both joints simultaneously.

During the early stages of work on this method of production the procedure was to run 5⅞-inch, 17.3-pound, 10-thread casing to approximately 5,500 feet with 2-inch tubing from that point to the pump at the bottom. Two-inch tubing then was run inside the 5⅞-inch to within a few feet of the swaging point to be used as a gas-lift string, flowing the oil up the inside of the 5⅞-inch pipe.

Both the initial cost and the expense of pulling jobs were high and brought about the present method of using perforations above the packer and using the original flow string for the gas-lift.

Oil production when using the centrifugal pump alone varied from 800 to 1,000 bbls. a day with attendant power charges of 2½ kilowatts for each barrel of oil. In the operation of gas-lift alone the ratio of input gas for each barrel of oil recovered became so excessive in many cases that it was not practical to continue the operation. By combining the centrifugal pump and the gas-lift, production was increased from about 800 to 1,000 bbls. a day to 2,400 to 3,200 bbls. a day, with a cost of electricity of only 1 kilowatt for each barrel of oil and an input gas-oil ratio of 600 to 700 feet of gas for each barrel.

After having run the complete installation into the hole gas is turned in before the pump is started, so that the first oil to come above the packer will be lifted to the surface without having had opportunity to load the hole. Operating pressures on the gas-lift system are about 500 pounds per square inch, and wells are produced with a steady flow.

Oklahoma Operations

By DAL DALRYMPLE

LOGAN COUNTY'S NEW POOL; ACTIVITY IN OKLAHOMA CITY

Amerada Petroleum Corp., Stanolind Oil & Gas Co., and Eason Oil Co. opened the eighth pool for Logan County with the No. 1-A Gragg (Bird), SW SW NE section 20-18-4w, west of the shallow Lovell pool in the northwestern part of the county. It topped first Wilcox sand at 6,126 feet; second sand at 6,133 feet and was bottomed at 6,145 feet. After washing over night, the well began flowing at the rate of 60 bbls. of oil an hour. It previously had produced 35,000,000 feet of gas a day.

In the Jesse sector of southeastern Pontotoc County, Continental Oil Co. deepened No. 1 McCarty, C SE NW section 12-1-7, discovery well, from 4,641 feet to 4,693 feet and it flowed 946 bbls. of oil in one hour, with drill pipe in the hole. Completed last November at 4,641 feet, it flowed 2,887 bbls. of oil in 5½ hours. Gas increased from 6,200,000 feet to 15,000,000 feet after deepening. Sunray Oil Co. was rigging up No. 1 Townsite, on Lot 2, Block 4, Jesse townsite, after acquiring lease on acreage held by W. A. Delaney and J. Byron Sledge.

In southern Oklahoma, two tests were of major interest at the moment. One was the Sinclair Prairie Oil Co. No. 1 Stockton, SE SE SW section 26-6s-2w, in the Oswalt area of Love County, which had a hole full of oil but would not flow naturally. Operators indicated the well would be shot several times and if that fails to make it flow, it may be deepened from present depth of 6,914 feet to another sand found in the original hole at 7,003-40 feet. The well made some flows, one being 144 bbls. in two hours, following swabbing tests.

It is the first Love County well to find oil. The much discussed and closely watched Carter Oil Co. and others No. 1 Williams, SW NE SW section 27-2s-3w, in the Fox field of Carter County, was due to drill plugs at 8,030 feet early in the week and resume drilling or coring the remaining 58 feet to the pay formation at the original depth of 8,088 feet in the old hole. It was not expected that the original pay would be reached before next week-end. The well was estimated good for 10,000 bbls. of oil when it found the deep pay last October. Frozen drill pipe prevented completion in original hole.

Oklahoma County

In the Oklahoma City district, Barnsdall Oil Co. and Fairfax Oil Co. No. 3 Bracht, in Block 13, Fairfax Addition, on the extreme east edge of the Capitol extension, completed potential test and was given a 24-hour rating of 22,296 bbls. Gas measured 31,500,000 feet daily. It had not been officially listed as a completion.

Although Oklahoma County was the center of attention in state oil circles because of the election at Oklahoma City and resultant haste to start new operations in the Capitol extension area, only one well in Oklahoma County was officially completed the past week and it was in the Edmond area. Pure Oil Co. No. 6 Malm, SE SW SW section 30-14-3w, flowed 1,028 bbls. of oil in four hours after a shot, made 24-hour potential of 6,171 bbls., and was completed. Second Wilcox sand, the producing horizon, was topped at 6,641 feet, total depth 6,708½ feet.

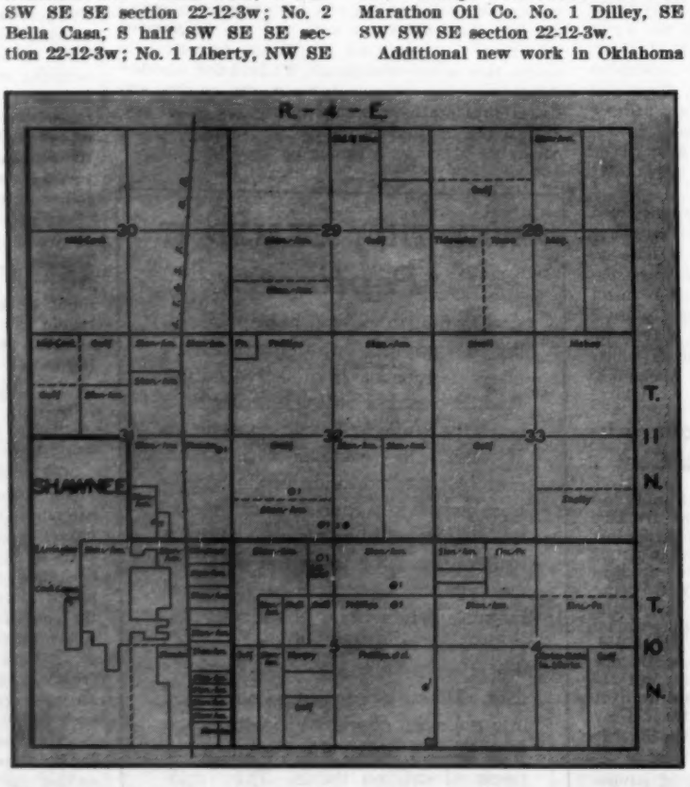
New work in Oklahoma County included the following locations staked by Phillips Petroleum Co. and Black Gold Petroleum Corp.: No. 1 Annie Sawyer, NW SE NE section 22-12-3w; No. 2 Sawyer, SW SE NE section 22-12-3w; No. 3 Sawyer, SE SE SW NE section 22-12-3w; No. 4 Sawyer, SE SW NE section 22-12-3w; No. 5 Sawyer, NW NE NE section 22-12-3w; No. 6 Sawyer, NW NW NE NE section 22-12-3w; No. 7 Sawyer, SW NE NE section 22-12-3w; No. 8 Sawyer, SW NE NE section 22-12-3w; No. 2 D. F. Sawyer, SW NE NE NE section 22-12-3w; No. 3 D. F. Sawyer, NW NE NE NE section 22-12-3w.

Phillips Petroleum Co. and British American Oil Co. made the following locations: No. 1 Bella Casa, N half SW SE SE section 22-12-3w; No. 2 Bella Casa, S half SW SE SE section 22-12-3w; No. 1 Liberty, NW SE SE section 22-12-3w; No. 1 McHagin, SW NE SE section 22-12-3w; No. 1 Warr, NW NW SE SE section 22-12-3w.

Phillips Petroleum Co. staked the following locations: No. 1 Beam, NE NW SW SE section 22-12-3w; No. 1 Dorothea Harrell, C NE SW SE section 22-12-3w; No. 1 Smiley Harrell, S half NE SW SE section 22-12-3w; No. 1 Hoagland, C SW NE SE section 22-12-3w; No. 1 Howell, N half NW NE SE section 22-12-3w; No. 1 Mayo, SW NE SE NE section 22-12-3w; No. 1 Neff, SW NW NE SE section 22-12-3w; No. 1 Rickard, SE NE NW SE section 22-12-3w; No. 1 Traub, NE SW SW SE section 22-12-3w.

Other new Oklahoma City locations: British American Oil Co. and Midway Oil Co. No. 5 McNabb, N half SW SE NE section 22-12-3w; same operators No. 6 McNabb, NW NW SE NE section 22-12-3w; British American Oil Co. No. 1 Alta Vista, SE NW SE section 22-12-3w; Empire Oil & Refining Co. and Heenan & Coe No. 1-A Levy, S half SE SE NW section 22-12-3w; Phillips Petroleum Co. and others No. 1 Cooper, NW NW NW SE section 22-12-3w; same operators No. 1 Vista, SE SW NW SE section 22-12-3w; Phillips Petroleum Co. and Marathon Oil Co. No. 1 Dilley, SE SW SW SE section 22-12-3w.

Additional new work in Oklahoma County: Fairfax Oil Corp. No. 1 Russell, NE SW NE section 15-12-3w, rigging up rotary; same operator's No. 2 Russell, SE SE SW section 15-12-3w, cellar; Anderson-Prichard Oil Co. No. 1 Proffitt, NE SW SE section 15-12-3w, building rig; British American Oil Co. No. 4 McNabb Park, SE NE NE section 22-12-3w, moving in tools; Westgate Oil Co. No. 10 Carey, NE NE NE SE section 34-12-3w, clearing location; Marathon Oil Co. No. 2 Rankins, NE SE SW section 31-14-3w, cellar cemented.



Three new tests are getting under way in the Shawnee pool, Pottawatomie County, Oklahoma, which recently was extended northwesterly into section 31-4-11

(Mid-Continent Map Co., Tulsa)

Estimated Production

Estimated daily average production of Oklahoma for the week ending March 28 and for the preceding week is as follows:

	Barrels	
	Mar. 28	Mar. 21
Allen	6,775	6,725
Asher-West Asher	850	900
Burbank	7,300	7,350
South Burbank	13,500	12,800
Balance Osage	23,750	23,500
Blackwell	4,450	4,550
Bristow-Slick	8,250	8,400
Chandler	3,850	3,900
Crescent	5,350	5,050
Cromwell	2,900	2,900
Cushing-Shamrock	11,500	11,750
Duncan district	3,925	3,900
Edmond	10,450	13,375
Fish	11,175	11,300
Fitts	45,450	53,225
Gray	1,700	1,700
Graham	3,825	3,800
Healdton	8,900	8,925
Hewitt	4,450	4,450
Holdenville	1,100	1,125
Keokuk	5,500	6,275
Konawa	2,125	1,900
Lucien	11,500	11,700
Marshall-Lovell	1,025	1,050
Oklahoma City	168,350	127,025
Olympic	4,900	(4,350)
Papoose	1,075	1,100
Polo	3,550	3,350
Sasakwa and townsite	3,950	4,025
Sholem-Alechem	3,650	3,650
Seminole field:		
Bowlegs	12,025	11,925
Carr City	6,900	6,775
Earlsboro	7,825	7,750
South Earlsboro	950	925
East Earlsboro	11,625	12,100
Little River	13,550	13,875
East Little River	1,200	1,100
Maud	1,000	1,025
Mission	2,425	2,400
Seminole	11,150	10,650
East Seminole	1,675	1,875
Searight	5,650	5,800
Total Seminole	75,975	76,200
St. Louis-Pearson	23,325	23,950
Tatums	3,550	3,525
Tonkawa-Garber-Thomas	5,650	5,500
Wewoka	3,900	3,925
Yale-Jennings	4,050	4,050
Other pools	53,500	*57,050
Total Oklahoma	546,025	525,900

*Includes Olympic total.

Near Completions

British American Oil Co. No. 1 Piersol, SE SE SE section 22-12-3w, was deepened from 6,362 feet to 6,511 feet, total depth, and was shot in after flowing 610 bbls. of oil in one hour. Gas gauged 66,500,000 feet. Same operator's No. 4 Piersol, NE SE SE section 22-12-3w, topped best pay and second Wilcox sand at 6,346 feet, total depth 6,442 feet. It flowed 6,860 bbls. of oil in six hours. Total flow for the last four hours was 4,658.15 bbls., giving it a potential of 27,948.90 bbls. Gas measured 33,600,000 feet. It was deepened to 6,518 feet and was

to test again. The company's No. 1 Russell, SE NE SE section 22-12-3w, topped Simpson formation at 6,350 feet, second Wilcox sand 6,369 feet. It was drilling ahead in Wilcox sand, producing gas at the rate of 15,000,000 feet daily and showing some oil. Same operator's No. 1 Winders, SE SW SW section 23-12-3w, topped second Wilcox sand at 6,336 feet, drilled to 6,339 feet, set casing and was waiting. Their No. 1 Hayes-Hyland, SE NE SE section 22-12-3w, was drilling below 6,415 feet and producing 20,000,000 feet of gas daily. Simpson horizon was topped at 6,355 feet, second Wilcox sand 6,384 feet. Casing was set at 6,370 feet. The Russell and Hayes-Hyland wells will be the company's ninth and tenth producers in the Capitol extension area of the Oklahoma City field.

Barnsdall Oil Co. and others No. 3 Bracht, NE SW SW section 23-12-3w, on the east side of the extension area, was making connections and preparing to drill in under pressure. Second Wilcox sand was topped at 6,352 feet, total depth 6,354 feet.

In the Britton area, Sinclair Prairie Oil Co. and others No. 1 Stites, SE SE SW section 8-13-3w, flowed 375 bbls. of oil gross and 95 bbls. of oil net in 14 hours after acidizing with 4,000 gallons. It was reacidized with 6,000 gallons and was waiting. Hunton lime was topped at 6,350 feet, Viola 6,484 feet, Simpson 6,527 feet, Dolomite 6,537 feet, total depth 6,630 feet.

In the Edmond pool, Marathon Oil Co. No. 10 Dahl, NE SE SE section 31-14-3w, topped Arbuckle lime at 7,085 feet and was drilling ahead in that formation below 7,152 feet, although a drill stem test showed only mud and water. A core in lime from 7,101 to 7,111 feet was saturated. This test is on the east edge of the pool.

Pontotoc County

Magnolia Petroleum Co. No. 3 Smith, NE SE NW section 28-2-7, in the Fitts area of Pontotoc County, bottomed at 4,288 feet, flowed 466 bbls. of oil gross in one hour through casing and 411 bbls. of oil net the second hour. It made potential of 3,214.44 bbls., with gas gauging 1,579,000 feet. Bromide was topped at 3,950 feet. Same operator's No. 2 Metropolitan, NE NE SW section 27-2-7, topped Bromide at 3,930 feet, McLish 4,140 feet, total depth 4,275 feet. It flowed 850 bbls. of oil in five hours and then was acidized. When opened it flowed 435 bbls. of oil gross the first hour and 186 bbls. net the second hour. It was given potential rating of 2,840.60 bbls.

E. H. Moore and others No. 3 Mack, NW SW SE section 28-2-7, made potential of 2,607 bbls. of oil and gas gauged about 1,000,000 feet, completed. Top of Bromide was 3,835 feet, McLish 4,000 feet, Dense lime 4,288 feet, total depth 4,307 feet. The Wapanucka was topped at 2,870 feet, and it faulted into Caney at 3,050 feet. Woodford formation was topped at 3,318 feet, and Hunton lime was faulted out, Sylvan being topped at 3,500 feet. J. E. Crosbie, Inc., No. 3-A Harden, NE cor. section 30-2-7, topped Hunton lime at 3,526 feet, Sylvan shale 3,810 feet, and at total depth of 3,817 feet it would not flow. It was acidized with 4,000 gallons, and flowed 264 bbls. of oil in the first two hours through casing. It was given potential rating of 663.66 bbls.

Boettcher Oil & Gas Co. No. 3 Starrett, SW SE NE section 23-4-7, bottomed at 1,725 feet, flowed 70 bbls. of oil through tubing in 24 hours and was completed. Sand was topped at 1,705 feet.

The following new work was starting in Pontotoc County: Clark & Cowden No. 5 Summers, NE NE SW section 17-2-7, drilling at 1,260 feet; Fleetborn Oil Corp. No. 3 Morin, SE SW SE section 20-2-7, rigging up rotary; Stahl Petroleum Co. No. 5 Dennis, SW cor. section 21-2-7, cellar and pits; Samedan Oil Co. No. 2-A Holkum, NE SW NE section 27-2-7, building rig; Morris & Kimbell No. 3 Call, NW SW NW section 22-5-8, drilling at 508 feet.

E. H. Moore and others No. 2 Norris, NE NW NE section 35-2-6, topped Viola lime at 4,296 feet, total depth 4,451 feet. It was acidized with 8,000 gallons and made potential of 1,614.66 bbls. of oil, cutting 25 per cent water. Gas gauged 1,096,000 feet. George Manahan and others No. 6 Reynolds-Wagner, NW NW SW section 17-2-7, had sand at 1,739-58 feet and was bottomed at 1,761 feet. It was shot with 15 quarts and swabbed 60 bbls. of oil in 15 hours. Fleetborn Oil Corp. No. 1 Morin, SE cor. section 20-2-7, topped Hunton lime at 3,540 feet, total depth 3,852 feet. After acidizing with 4,000 gallons, it flowed 290 bbls. of oil gross the first hour, and 190 bbls. the second hour through tubing; after being shut in six hours it flowed 72 bbls. of oil in 30 minutes through 1-inch tubing, and then 250 bbls. of oil in two hours through one-half inch tubing choke. Continental Oil Co. No. 1 Holkum, NW NW SE section 27-2-7, at total depth of 4,275 feet flowed 632 bbls. of oil the first hour and 580 bbls. the second hour through casing.

Magnolia Petroleum Co. No. 4 Burris "A," SE SW NW section 27-2-7, drilled to 4,287 feet and flowed 746 bbls. of oil the first two hours through casing and 258 bbls. the next two hours through tubing. It was to be acidized. Same operator's No. 1 Burris "B," SW SE NE section 28-2-7, topped Bromide at 3,945 feet, total depth 4,305 feet. It flowed 73 bbls. the first hour through tubing and 144 bbls. the next hour through casing on gas lift. After acidizing it flowed 593 bbls. of oil gross the first hour and 181 bbls. in the next 30 minutes. The company's No. 1 Shelton, SW SE SW section 28-2-7, flowed 292 bbls. of oil in eight hours through casing after acidizing, and made potential of 339.98 bbls.

Skelly Oil Co. No. 7 Park College, SW NW NE section 28-2-7, drilled to 4,305 feet, total depth, and flowed 608 bbls. of oil in seven hours through tubing. Viola lime was topped at 3,742 feet. Stahl Petroleum Co. No. 2 Dennis, NW NE NW section 28-2-7, topped Bromide at 4,105 feet, total depth 4,285 feet. After a 10-quart shot it flowed 84 bbls. of oil in two hours through tubing.

Seminole County

Carter Oil Co. No. 1 Fannie Black, C E half NW NW section 23-10-6, flowed 260 bbls. of oil in eight hours through 1-inch choke, cutting 6 per cent water, and was completed. Misener sand was topped at 4,240 feet, Hunton lime 4,248 feet, total depth 4,261 feet. Before acidizing it flowed 405 bbls. of oil in 24 hours through tubing. Same operator's No. 1 Grisso, C W half SE NW section 23-10-6, topped Misener sand at 4,247 feet, total depth 4,260 feet. It flowed 200 bbls. of oil in 24 hours through casing. After acidizing it flowed 108 bbls. of oil net in 24 hours through tubing.

Francis Oil Co. No. 2 Ragland, SE SW NW section 19-5-6, flowed 210 bbls. of oil net in 24 hours and was completed. Hunton lime was topped at 2,355 feet, Sylvan shale 2,538 feet, total depth 2,540 feet. It was acidized with 4,000 gallons. Texas Co. No. 2 Stewart, NW SW NE section 19-9-7, flowed 220 bbls. of oil net and 25 bbls. of water in 24 hours after acidizing and was completed. Hunton lime, the producing formation, was topped at 4,080 feet, total depth 4,121 feet. Wood Oil Co. and others No. 1 Ellis, NW NE NE section 36-9-5, topped Wilcox sand at 4,286 feet, had 1,400 feet of water in the hole and was dry and abandoned at 4,295 feet, total depth.

New Seminole County work: Sinclair Prairie Oil Co. No. 1 Lusten, NW NE NE section 13-5-7, digging cellar; Vierson Brothers No. 4 Jones-A, SE SW NW section 11-6-6, spudded; Fleetborn Oil Corp. and others No. 1 Patton, NW NW SW section 18-6-8, location; Pioneer Drilling Co. and Phillips Petroleum Co. No. 1-A Fixico, NE SW NE section 26-9-6, rigging up rotary; Wood Oil Co. No. 1 Harber, SE NE NW section 19-9-7, rig; Carter Oil Co. No. 2 Parsons, C W half NW SW section 14-10-6, location; Ark Royalty Co. No. 1 Kiker, SE SE NE section 9-10-7, location.

Rudco Oil Co. No. 3 Fleet, SW NE SE section 13-6-7, topped Gilcrease sand at 2,773 feet, had first oil at 2,973 feet and swabbed 75 bbls. of oil in 12 hours. It was drilling below 2,825 feet. M. B. Rudman No. 1-A Bates, SE SE NE section 13-6-7, topped Gilcrease sand at 2,766 feet, total depth 2,820 feet, and swabbed 50 bbls. of oil in 24 hours. E. W. Jones No. 1 Shiffeet, NW NW NE section 34-8-8, topped Wilcox sand at 4,173 feet, drilled to 4,187 feet, was shot and swabbed 500 bbls. of oil in 24 hours. Carter Oil Co. and others No. 4 Pipkin C-28, C W half SE SW section 2-10-6, flowed 223 bbls. of oil in 16½ hours through casing and tubing and 92 bbls. in two hours through tubing. Top of Hunton lime was 4,148 feet, total depth 4,160 feet.

Hughes County

A wildcat south of the Olympic pool in northwestern Hughes County failed to find Senora sand, the producing horizon in the Olympic area, and was dry and abandoned at 2,001 feet. It was the Fitzpatrick and others No. 1 Cotton, SE SE NE section 13-8-8. Calvin sand was topped at 1,275 feet.

The following new work was started in Hughes County: George Manahan and others No. 1 Oliphant "E," SE SE NW section 1-9-8, set 10-inch pipe at 42 feet, waiting; same operators' No. 2 Tucker, NE SE SE section 2-9-8, rig; Carter Oil Co. No. 2 Hampton, NW NE NE section 1-9-8, spudded; Mid-Continent Petroleum Corp. No. 2 Hampton, NW SW NE section 1-9-8, spudded; Sinclair Prairie Oil Co. No. 8 Oliphant, NE NW SE section 1-9-8, location; M. A. Wiley and others No. 1 Barnett, NW NW SE section 27-9-10, location.

W. D. Grisso Royalty Corp. No. 2 Barnhart, SE NW NW section 8-6-8, in the Hughes County sector of the Sasakwa area, swabbed 75 bbls. of oil and 250 bbls. of water in 24 hours after plugging back to 4,129 feet. Water had intruded at 4,152 feet, total depth. Mid-Continent Petroleum Corp. No. 1 Hampton, SW SW NE section 1-9-8, in the Olympic area, topped Senora sand at 1,669 feet and was bottomed at 1,728 feet. It was shot with 60 quarts and flowed 130 bbls. of oil in 24 hours.

Okfuskee County

George Manahan and others No. 2 Dalton, SW SE SE section 36-10-8, is the second well in the Okfuskee County extension of the Olympic pool to be completed. It topped Senora sand at 1,706 feet. At 1,760 feet, total depth, it was shot with 60 quarts and flowed 237 bbls. of oil and 5 bbls. of water in 10 hours. In the Dill area, Ralvern Oil Co. No. 4 Johnson, C E half NW NE section 11-11-8, was acidized with 2,000 gallons, flowed 120 bbls. of oil in two hours through tubing choke and was completed. Hunton lime top was 3,873 feet, total depth 3,898 feet.

New work in Okfuskee County follows: George Manahan and others No. 1 DaHon, SE SW SE section 36-10-8e, cellar; Earl Evans and others No. 1 James, SE SW NW section 36-10-8, location.

Pottawatomie County

The only Pottawatomie County completion was the Conly Drilling Co. and others No. 2 Vinson, SW NE NE section 13-7-4. It swabbed 300 bbls. of oil in 24 hours and then pumped 240 bbls. in 24 hours, producing from Wilcox sand topped at 4,062 feet, total depth 4,072 feet.

Payne County

Amerada Petroleum Corp. and others No. 2 Gassoway, NW NE NE section 33-19-3, in the Stillwater area of Payne County, made potential of 1,640 bbls. of oil and was completed. Viola lime was topped at 4,234 feet; Dense, 4,254 feet; Wilcox sand, 4,296 to 4,301 feet, total depth. It flowed 410 bbls. of oil in six hours, and gas measured 1,500,000 feet. Oil was 41.2 gravity. Sinclair Prairie Oil Co. No. 1 Rule (Wright), C NW NE section 8-19-1w, an old well in the Orlando area, was deepened from 4,864 feet to 4,871 feet and plugged back to 4,854 feet, pumped 1 bbl. of oil and was completed.

Lincoln County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 1 Crawford, NE NE SE section 35-15-2, wildcat west of the Chandler area in Lincoln County, was completed as a Simpson producer at 5,243 feet, total depth, after plugging back to 5,150 feet. It was acidized with 3,000 gallons, and flowed 30 bbls. of oil per day, cutting 15 per cent water and basic sediment. Later it flowed 25 bbls. of fluid, 84 per cent of which was fluid. Gas gauged 3,000,000 feet. Hunton lime was topped at 4,837 feet; Sylvan shale, 4,930 feet; Dense, 5,051 feet; first Wilcox sand, 5,110 feet; second Wilcox sand, 5,218 feet.

One new test was reported in Lincoln County. Magnolia Petroleum Co. No. 3 Epps, NW SE SE section 32-15-3, was a location.

Garvin County

Suggett & McElreath No. 1 Hyre, NE NE SE section 23-3-1w, wildcat near Pauls Valley in Garvin County, was dry and abandoned at 4,820 feet, total depth. This well once looked so much like a certain producer that some observers hailed it as a discovery well. It cored much of the way below 4,000 feet, recovering sandy and green shale, Dolomite

and Wilcox sand grains. It had several showings of oil and gas, salt and sulfur water.

Logan County

Wilcox sand in the R. H. Pierce No. 1 Kihega, SW SW SW section 7-17-1, failed to carry oil and the Logan County wildcat was dry and abandoned at 5,156 feet, total depth, in sandy dolomite. The sand was topped at 5,132 feet and based at 5,143 feet. The location was east of the Langston pool.

Phillips Petroleum Co. No. 2 Pfeiffer, C N half NW NE section 4-19-2w, in the Logan County sector of the Lucien area, topped first Wilcox sand at 4,953 feet; second sand, 5,087 feet; total depth, 5,114 feet. Best pay was had at 5,112-14 feet. It flowed 470 bbls. of 42.8 gravity oil, and may be deepened.

Osage County

Lewis Production Co. and Continental Oil Co. No. 12 Osage, SW NW SW section 16-24-7, flowed and swabbed 186 bbls. of oil in 24 hours and was completed. Bartlesville sand was topped at 2,594 feet; total depth, 2,634 feet. Continental Oil Co. and Gulf Petroleum Corp. No. 3 Osage, NW NW SW section 22-24-7, topped Bartlesville sand at 2,466 feet and was bottomed at 2,577 feet. It was shot with 60 quarts, swabbed 55 bbls. of oil in 24 hours and was completed. Coralena Oil Co. No. 2 Osage, NE NW SW section 22-24-8, topped Wilcox sand at 2,600 feet, had a hole full of water at 2,641 feet, total depth, and was dry and abandoned.

New work in Osage County: Ohio Osage Oil Co. No. 26 Osage, NW SW SW section 9-21-9, location; Sinclair Prairie Oil Co. and Indian Territory Illuminating Oil Co. No. 7 on tract 140, NE SW SE section 9-25-6, location; same operators No. 8 on tract 140, SW NW SE section 9-25-6, location; Sinclair Prairie Oil Co. No. 13 Osage, SE NW SW section 30-25-8, drilling at 550 feet; Champlin Refining Co. No. 1 Osage, SW SW NE section 35-25-6, cellar.

Lewis Production Co. and Texas Co. No. 5 Claremore, SW NE SE section 17-24-7, in the Naval Reserve area, flowed 19 bbls. of oil in the first hour after a 30-quart shot at 2,609-24 feet. Bartlesville sand was topped at 2,602 feet; total depth, 2,624 feet. Peters Petroleum Corp. and Sinclair Prairie Oil Co. No. 11 Osage, SW NW NE section 24-24-7, topped a sand at 687 feet; total depth, 740 feet; swabbed 23 bbls. of oil and 18 bbls. of water in 24 hours, and may drill deeper.

In the South Burbank area, Carter Oil Co. No. 7 Kennedy C-42, NE SW SE section 34-26-6, flowed 689 bbls. of oil in 18 hours, and was flowing by heads at total depth of 2,870 feet. Bartlesville sand was topped at 2,800 feet; first oil was encountered at 2,819 feet, and first flow at 2,840 feet.

Kay County

New work in Kay County: W. O. Allen and Texas Co. No. 1 Fulton, SE cor. section 18-27-4, was a wildcat location near Mervine; Kansas-Oklahoma Oil Co. No. 1 Sherbon, C SW SW section 20-29-1, had a hole full of water at 1,230-50 feet, and was drilling at 1,305 feet.

Shell Petroleum Corp. and Continental Oil Co. No. 2 Lawrence, SE SE NW section 5-28-1w, encountered an oil showing at 2,756 feet and at 2,783 feet it flowed and swabbed 197 bbls. of oil natural in 24 hours. It was shot at 2,763-83 feet, and swabbed 125 bbls. in 10 hours and was cleaning out. It is an old well deepened from 2,382 feet. Layton horizon was topped at 2,742 feet. Argo Oil Co. No. 1 Myers, NE SW SW SW section 20-25-1w, in the Tonkawa area, swabbed 30 bbls. of oil and 20 bbls. of water after plugging back to 4,260 feet. Top of Wilcox sand was 4,430 feet; total depth, 4,490 feet in sand.

Grant County

Argo Oil Co. No. 3 Stewart, NE SE SE section 22-27-3w, in the Deer Creek area of Grant County, was deepened from 3,988 feet to 4,260 feet, total depth. Before completing, it was plugged back to 3,760 feet; was shot, acidized and had casing perforated. Eventually, it was reacidized, flowed 152 bbls. of oil in 24 hours and was completed.

Carter County

Gulf Oil Corp. No. 3 Fitzgerald, SE NW SE section 28-2s-3w, in the Fox area of Carter County, was completed as a gasser, flow gauging 3,500,000 feet. It had sand at 2,982-3,022 feet; total depth, 3,035 feet. Sinclair Prairie Oil Co. No. 3 Apple-Franklin, SW SW NW section 9-4s-3w, an old well deepened from 1,050 feet, originally had several oil sands from 940 to 1,032 feet. Deepening, it had shale from 1,032 to 1,097 feet, total depth. It was completed as a 12-bbl. pumper.

Two new tests were reported in Carter County. Maxine Oil Co. No. 2 Eaves, NW NW SE section 5-2s-2w, was drilling at 1,100 feet. Jones Brothers and others No. 4 Humble-Dillard, NE SW SE NE section 22-4s-2w, old well drilling deeper, building derrick.

Texas Co. and others No. 1 Cathey, SE NE NE section 6-5s-1w, wildcat southeast of the Hewitt pool in Carter County, pumped 45 bbls. of oil in 24 hours after drilling to total depth of 4,187 feet in shale. It had several unidentified sands. Sinclair Prairie Oil Co. No. 22 Million & Thomas, NW SW SE section 5-4s-3w, Ordovician well in the Healdton pool, drilled to 3,183 feet and plugged back to 3,168 feet. It was acidized with 3,000 gallons and 35 bbls. oil load; set for 58 hours, and on opening it had a hole full of oil. Operators were preparing to swab.

Bryan County

Wayne King's Bryan County wildcat, the No. 1 Kimbell, C E half NE NW section 36-9s-9e, had sand at 843-94 feet, but began flowing water at 896 feet, total depth, and was abandoned.

Marshall County

G. L. Priest No. 7 Cope-Sublett, SW SE NE section 1-8s-5, in Marshall County, was completed as a 10-bbl. pumper. It had sand at 547-61 feet, total depth. Jesse Cook No. 1 Marshall, NE SE SE SW section 30-5s-6, was abandoned at 822 feet, total depth, in black shale.

Location was staked for one new test in Marshall County. It was Kingston Oil Co. No. 4 Felts, NW NE NW section 6-8s-6.

Levelle Coal Co. No. 4 Brent, NE NW SE section 1-8s-5, in the Isom Springs area of Marshall County, had 300 feet of oil in the hole at total depth of 555 feet in sand and was rigging up to pump. Sand was topped at 542 feet. Kingston Oil & Gas Co. No. 3 Felts, SW NE NW section 6-8s-6, had 200 feet of fluid in the hole and was rigging up to pump. It had sand at 529-42 feet, total depth.

Southwestern Oklahoma

Only two wells were completed in southwestern Oklahoma. In Stephens County, Raisen Brothers No. 4 Crosby, SW cor. section 23-1s-5w, pumped 4 bbls. of oil and 4 bbls. of water in 24 hours and was completed. It had sand at 662-73 feet; total depth, 674 feet.

In Jefferson County, Sinclair Prairie Oil Co. No. 1 Barrett, NW cor. section 31-5s-6w, wildcat southeast of Waurika, was dry and abandoned at 4,350 feet, total depth, in Arbuckle lime.

New work in southwestern Oklahoma: In Jefferson County, Long, Yingling and Lauck No. 16 Seay, SE SW SE section 3-7s-5w, was coring below 1,200 feet.

In Jackson County, S. W. Hardwick No. 1 Grimes, SW NW SE section 14-1-20w, spudding; Pioneer Oil Co. No. 1 Federal Land Bank, NE NW SE section 23-1-20w, spudding.

In Comanche County, Guy Anderson No. 3 Price, SW NE NE section 30-2-9w, set surface pipe at 44 feet and was waiting.

In Kiowa County, Jap Fields No. 1 Crossley, NW SE SE section 34-7-17w, location.

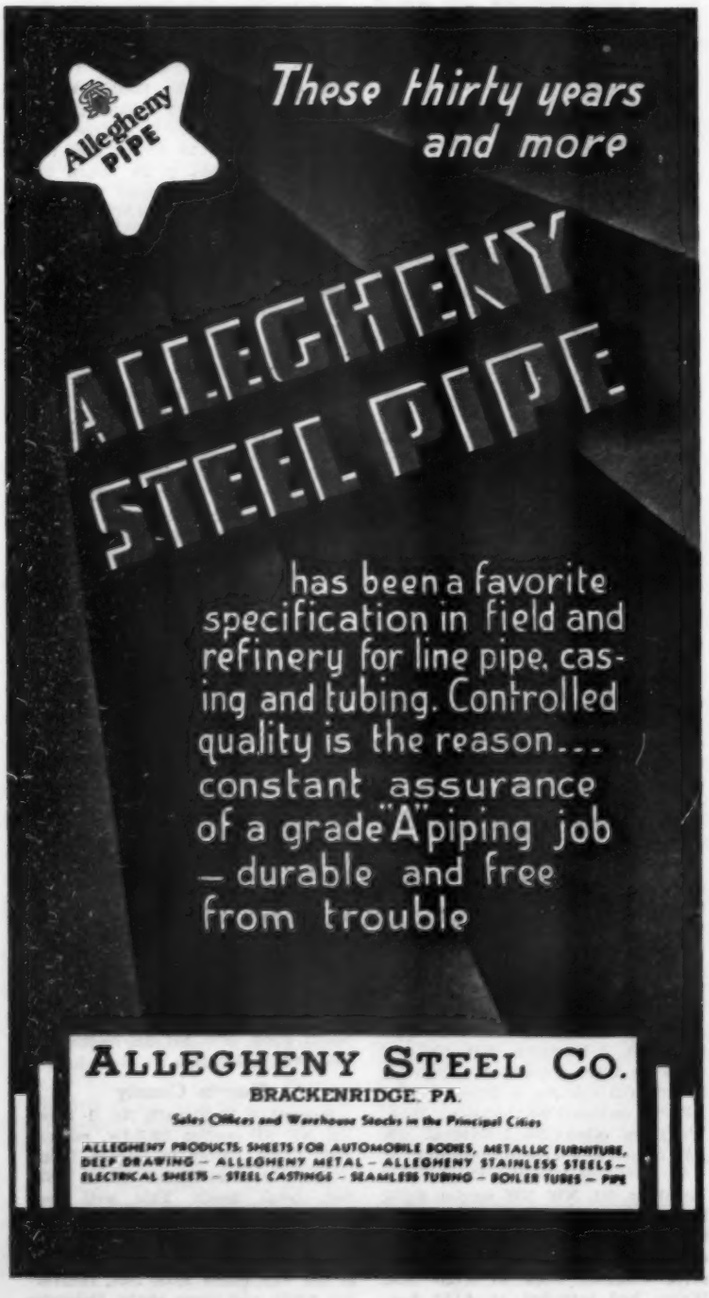
In Tillman County, D. S. Smith No. 1-A Hammill, NE NE NW NW section 6-5s-15w, was drilling at 495 feet.

Creek County

A 2,500,000-foot gasser in Creek County was completed by Sooner Oil & Gas Co. with No. 1 Warren, CNL S half SE section 17-16-11. It had sand at 2,100 to 2,109 feet. Curtis Oil Co. No. 3 Yellowhead, NE SW NW section 33-17-10, was dry and abandoned in Wilcox sand at 3,037 to 3,041 feet. Dutcher sand was topped at 2,668 feet. Sinclair Prairie Oil Co. deepened No. 35 Litchfield, NW SW NW section 22-17-7, from 2,820 feet to Tucker sand at 2,896-97 feet and pumped 125 bbls. of oil.

New work in Creek County follows: L. B. Jackson No. 7 Bear, SE cor.

(Continued on Page 76)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Edwards Drilling Co. has reached the pay in two 8,000-foot wells in the Dickinson field in Galveston County and has received contracts for three more wells. In the south extension area of the Dickinson field, Coast Petroleum Co. No. 3 Maco Stewart is bottomed at 8,565 feet and 7-inch casing is being cemented. To the north for the Pure Oil Co., No. 3 Shelors is bottomed at 8,052 feet and is being tested after 8,025 feet of 7-inch casing had been set. A rig is being moved into the old Cow Bayou field in Orange County for the Texas-Canadian Oil Co., which has staked location for No. 1 Bland, located in the Dyson Survey. On the Grigsby prospect, near the town of Kountze in Hardin County, a rig is being moved in for D. B. McDaniels' wildcat test located in the E. Manuel Survey. The other location to be drilled will be for the Coast Petroleum in the Dickinson field.

Nicklos Drilling Co. has reached the 8,300-foot sand in No. 1 P. W. Miller, in the Tepetate field, for Continental Oil Co., and has cemented a string of 5¾-inch casing on bottom preparatory to testing through perforated casing. As soon as the well is completed the rig will be moved in for No. 1 A. Young. On the Marcantel lease, for the same company, the sand should be reached during the next day or so, as the hole is below 8,300 feet.

Rowan Drilling Co. completed the third well for the Amerada Petroleum Corp. in the Cheneyville field and has moved the rig over for another location. No. 1 Beasley flowed 212 bbls. per day through a 2/64-inch choke and it extends the field approximately 1,400 feet to the west. In the Satsuma area, Harris County, a rig is being moved in for No. 1 Dopslauf, which will be drilled for Amerada Petroleum Corp. In the Orange field, T. J. Wood and others No. 1 Brown is bottomed at 6,163 feet and will probably be abandoned at that depth.

Noble Drilling Co. has plugged back on Stanolind Oil & Gas Co. No. 1 State, located in Turtle Bay, Chambers County, and is preparing to set a whipstock at 5,400 feet. The hole was originally drilled to 7,457 feet and will be redrilled to 6,600 feet, where it tested several hundred feet of oil a few weeks ago. Contract was received for the company's No. 2 Middleton, located southeast of the discovery well, and it will be spudded during the week. In the Penn City area, east of Houston in Harris County, Amerada Petroleum Co. No. 1 Neillie Esperson has been spudded. It is located in the George Patrick Survey.

Rutherford Drilling Co. is reaming to set casing in No. 4-B Cobb in the Van Vleck field, Matagorda County, for Skelly Oil Co. after the oil sand had been cored to a depth of 7,502 feet. Another rig is located on the Langham lease, while at Placedo field, in Victoria County, Barnsdall Oil Co. No. 4 Gray is drilling in sandy shale below 3,250 feet.

C. & C. Drilling Co. cemented 10¾-inch casing in No. 2 Lawrence at the Cotton Lake prospect in Chambers County for the Salt Dome Oil Corp., and is preparing to drill plug.

Smith & McDannald's first attempt for production at the South Houston field resulted in one of the best wells to be completed in the field. It is their No. 1 Vallos, outside of the South Houston townsite in the Mary Nichols Survey, which flowed 125 bbls. per day through a 9/64-inch choke. The well is flowing from a thick section of sand bottomed at a depth of 3,965 feet, and extends production approximately 1,100 feet to the northwest. Location has been made for No. 1 Reynolds, located about 1,000 feet to the southeast, and the rig is being moved to the location. In Calcasieu Parish, A. G. Oliphant No. 1 Calcasieu National Bank has been abandoned at 7,509 feet and the rig is being moved to Frio County, in Southwest Texas, where another interesting wildcat will be drilled for the same operator. In the meantime five other active rigs are located as follows: One at Long Lake for Tide Water Oil Co., two at St. Martinsville for Tide Water Oil Co. and Continental Oil Co., one at Jen-

(Continued on Page 76)

On location at the Orchard field in Fort Bend County. Standing, left to right: C. C. Nicks, welder, Gulf Oil Corp.; W. D. Stine, drilling engineer, Gulf Oil Corp.; L. M. Cashion, general superintendent, Gulf Oil Corp. at Houston; R. E. Williams, superintendent at Orchard field, Gulf Oil Corp., and Arch Owens, with J. S. Abercrombie Co.

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Texas and Louisiana Gulf

NEW POOL AND EXTENSIONS MADE IN SOUTH LOUISIANA

By
F. L. SINGLETON

HOUSTON, Tex., Mar. 30.—The Bayou Mallet prospect, located in northern Acadia Parish, in Coastal Louisiana, which was proven for distillate production the first part of the year by the completion of Superior Oil Producing Co. and others No. 1 Adams-Smith, was converted into an oil field when the same company's No. 1 Bradley, located 2,250 feet south, flowed 324 bbls. of 27.9 gravity oil per hour through a 12/64-inch choke with tubing pressure 525 pounds and casing pressure 500 pounds. The hole was drilled to 8,000 feet and after 7-inch casing was cemented at 7,314 feet, it was perforated with 11 shots from 6,385-90 feet.

Production is from the top of the Heterostegina, which was topped at 6,385 feet. An electrical coring test which was run prior to the production test showed three sands, all of which showed high porosity. The first sand was found at 6,385-97 feet, the second section at 6,988-98 feet and the third from 7,195-7,213 feet. The discovery well was completed in the Marginulina sand from 7,190-7,210 feet and has been making approximately 24 bbls. of distillate per day.

Third Well Drilled

No. 1 Bradley is the third well drilled on the structure by Superior Oil Producing Co. To the north of the discovery well, No. 1 M. Savoy was abandoned at 8,027 feet and it is apparent that the high part of the structure is located to the south and may extend to the Church Point prospect situated about 3 miles due south which has been the scene of much development within the past two years. Bayou Mallet was worked with torsion balance instruments in 1934 by the Shell Petroleum Corp. and was checked with reflection seismograph in 1935 by Superior Oil Producing Co.

The new well is located 2,582 feet south and 1,785 feet west of the northeast corner of section 47-7s-1e.

In the southern part of Acadia Parish, Louisiana, Magnolia Petroleum Co. has moved in a rig to the Estherwood prospect, to drill No. 1 Feitel, located 990 feet north and 150 feet east at right angles in section 54-10s-1w. This area has been the scene of an active leasing campaign during the past months, and has been worked extensively with geophysical instruments. Principal leaseholders other than Magnolia, are Stanolind Oil & Gas Co. and Gulf Oil Corp. To the northeast in the extreme southwestern corner of Allen Parish, Humble Oil & Refining Co. is clearing location for another interesting wildcat to be drilled on a block of 7,000 acres, known as the Reeves prospect, which was worked extensively with geophysical instruments during 1934 and 1935. The well will be drilled on the A. Bel estate and is located in the SE SW section 28-6s-7w.

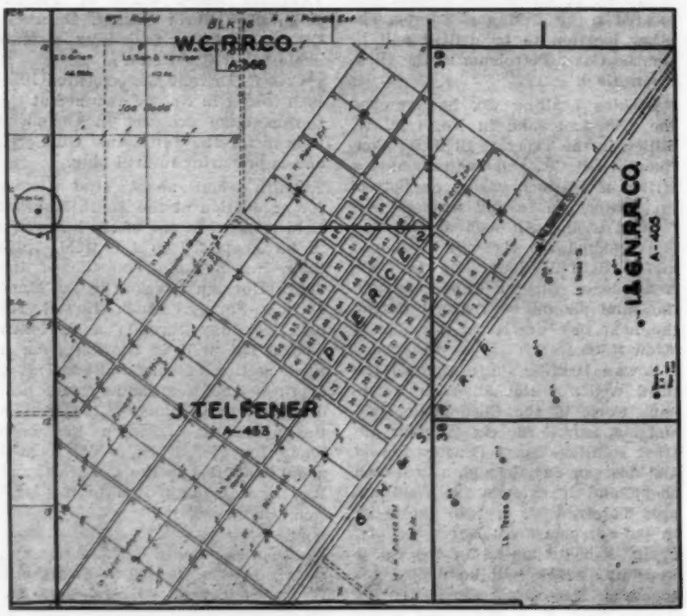
Roanoke Extended

Two extensions were marked up for the Roanoke field, also in Jefferson Davis parish. Humble Oil & Refining Co. No. 2 Nelson Thomas, located west of the field in section 11-9s-4w, was completed at a depth of 8,694 feet and flowed 55 bbls. per hour through a quarter-inch choke with tubing pressure 1,600 pounds and casing pressure 1,000 pounds. Seven-inch casing was cemented at 8,667 feet and the well was tested through perforated liner from 8,693-94 feet. To the northwest Gulf Oil Corp. and others No. 1 T. A. Anding is bottomed in oil sand at 8,692 feet and 7-inch casing was cemented at 8,680 feet. Location is in section 2-9s-4w.

Calcasieu Parish

Preparations were being made by the Union Sulphur Co. to test No. 6 O. H. Castle, located midway between the two producing zones at the Gillis field in Calcasieu Parish. Casing has been cemented to test sand at 5,427-32 feet, which showed favorably on an electrical coring test. If productive the well will connect the two producing areas that are producing from 6,700 and 7,000-foot horizons. Location is in section 13-9s-8w. The company's No. 1 Cole, an east offset to Fohs Oil Co. No. 1 Frost, was coring in sandy shale at 5,252 feet and was expected to encounter the oil sand which showed for a producer in the Frost well. The latter test is coring below 6,100 feet after it tested gas and salt water on a drill stem test in sand bottomed at 5,259 feet.

At the Iowa field, Jefferson Davis Parish, the outcome of Shell Petroleum Corp. No. 20 Heyd was being watched closely as it prepared for a completion test in a shallow sand bottomed at 5,275 feet. Seven-inch casing was cemented at 5,258 feet. The majority of the wells are producing from a 6,900-foot sand, although production has been found at 4,400 and 5,000 feet. Location is in section 13-9s-7w.



A part of the Pickett Ridge field, Wharton County, showing location of Texas Co. No. 1 Joseph Marek which extended the field about 1 mile to the northwest in the past week

Map courtesy of W. W. Zingery, Houston, Texas

Extends Cheneyville

Amerada Petroleum Corp. No. 1 Beasley extended the Cheneyville field in Rapides Parish 1,400 feet west when it flowed 212 bbls. per day through a 20/64-inch choke with tubing pressure 125 pounds and casing pressure 500 pounds. This is the third producer for the field and it was completed in the Cockfield sand at 5,719 feet. Seven-inch casing was cemented at 5,714 feet. Northeast of the field, about 3,000 feet, Foster Oil Co. was preparing to make a second drill stem test from 5,702-51 feet. The first test failed when the packer failed to hold. Location is in section 2-1s-2e.

The completion of two extension wells in the South Houston field in Harris County and the Pickett Ridge field, Wharton County, together with the announcement of two interesting wildcat tests were the featured developments along the Texas Coast the past week.

Texas Coast

Smith & McDannald No. 1 Vallos extended the South Houston field approximately 1,200 feet to the northwest when it flowed at the rate of 125 bbls. per day through a 9/64-inch choke. The original pressures were 1,175 pounds on the tubing and 1,550 pounds on the casing, but by using various chokes the operators have been able to reduce them to about 550 pounds on the casing and tubing. This is the best well completed in the field and it is producing from a thick section of sand topped at 3,907 feet and bottomed at 3,965 feet. Seven-inch casing was cemented at 3,896 feet. The same operators are building derrick for No. 1 Reynolds, located on a five-acre tract about 1,000 feet to the southeast in the Mary Nichols Survey, which is due west of Stanolind Oil & Gas Co. No. 1, District 22. To the north in the Callahan & Vince Survey, Stanolind Oil & Gas Co. No. 2 First National Bank flowed 374 bbls. in 24 hours through a quarter-inch choke with tubing pressure 450 pounds and casing pressure 650 pounds.

Pickett Ridge Extension

Considerable acreage was opened for development at the Pickett Ridge field, Wharton County, by the completion of Texas Co. No. 1 Joseph Marek, which extended the field about 1 mile to the northwest when it came in flowing at the rate of 225 bbls. of fluid per day through a quarter-inch choke with tubing pressure 400 pounds and casing pressure 750 pounds. The well is flowing through perforated casing from 4,600-12 feet and may be worked over since it is reported to be making about 20 per cent salt water. It is located in section 76, I.&G.N. Survey. To the south in the Withers field, the same company is preparing to test No. 3-C Pierce, located about 1,000 feet northeast of the discovery well in the J. Caldwell Survey. It is bottomed in oil sand at 5,565 feet with 7-inch casing cemented at 5,557 feet.

Another interesting wildcat test was announced for Chambers County. It is Glenn H. McCarthy, Inc., No. 1 A. Pitt, situated 330 feet out of the southwest corner of Lot 7, Block 71, in the J. M. Duran Survey. Derrick is being built on the A. Pitt lease on a 10-acre tract. Since the discovery of the Anahuac field, this area, which is known as the Winnie prospect, has received quite an active lease play and considerable acreage has been taken by Sun Oil Co., Humble Oil &

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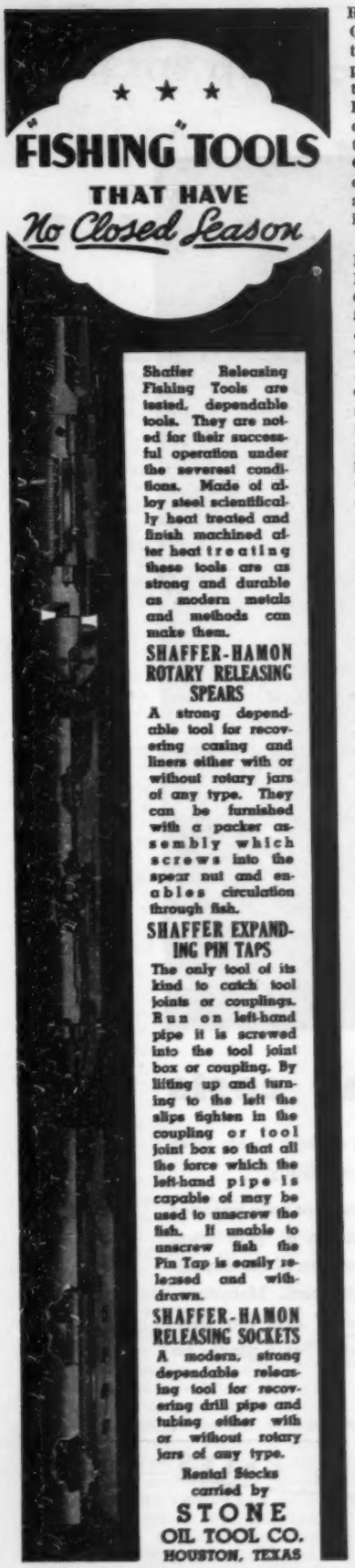
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Refining Co. and Gulf Oil Corp. Sun Oil Co. worked the area in 1934 using torsion balance instruments while the past year, McCarthy, Inc., checked the area with reflection seismograph. Harris County received its third wildcat within the past two weeks, by the announcement of Bunte Oil & Gas Co. No. 1 Lobit and others, located 150 feet south of the north line and 3,006 feet east of the west line in the Benjamin Barrow Survey.

Humble Oil & Refining Co. No. 1 Patrick Welder, located on the Green Lake prospects, western Calhoun County, made a drill stem test from 5,815-20 feet and tested 450 feet of oil and mud, 50 per cent of which was oil and 300 pounds of pressure. Numerous showings have been encountered and the hole will be drilled several hundred feet deeper at which time an electrical coring test will be made and all sands encountered will probably be tested through perforated casing. It is located due north of two dry holes in the Maria Rios Survey.

Gulf Oil Corp. No. 1 Fairfield, which proved up the Lockridge prospect in western Brazoria County last week, has been killed and the operators are pulling screen and liner to deepen. It was completed at a depth of 6,277 feet and flowed at the rate of 3 bbls. of oil per hour through a one-quarter and five-sixteenths inch chokes. It was decided to drill deeper after the well began making 8 per cent salt water. Location is in the A. Robinson Survey.

The first shipment of oil from Hamman Exploration Co. No. 1 Cleveland, the discovery well of the new Bay City field, Matagorda County, was delivered to Republic Oil & Refining Co.'s plant, located on the Houston Ship Channel at Houston. The well was completed three weeks ago and has produced a total of 3,100 bbls. On the last 24-hour gauge available, it flowed 232 bbls. of fluid, 37 per cent of which was salt water, through a three-sixteenths inch choke. The tubing pressure was 1,725 pounds and the shut-in casing pressure 3,100 pounds.

Amelia Field

At the Amelia field, northern Jefferson County, a production test was made on McCarthy, Inc., No. 1 Longe and it tested 3,182,000 feet of gas per day through a quarter-inch choke and 25 bbls. of distillate per day, with tubing pressure 1,975 pounds and casing pressure 2,150 pounds. To the south, Humble Oil & Refining Co. is drilling ahead on two wells which have missed the sand. No. 1 Broussard, located east of the discovery well, is coring in sand below 7,800 feet, while to west No. 2 Miller is drilling in shale below 7,340 feet. In the southeastern part of the County, H. C. Bishop and others No. 1 Grigsby, a wildcat test located in the H.&T.C. Survey, 2 miles northeast of Port Arthur, is drilling in shale below 7,668 feet and is apparently too low to produce. The Discorbis was topped at 7,221-51 feet and Heterosteginn at 7,576 feet.

In northern Montgomery County,

Central West

Operations in Central Ohio, Kentucky, Illinois, Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, Mar. 30.—A decided decline in field operations was noticed in the Central West fields for the past week. The Lima field, particularly, is very quiet at the present time. The only activity there for the past week was the abandoning of 14 old wells in Wood County.

In the Central Ohio fields, three completions were reported. In Stark County, section 27, Jackson Township, East Ohio Gas Co. No. 1 R. V. Mitchell, was a commercial gas well at a total depth of 4,305 feet. Brendal Producing Co. No. 1 Magdeline Jones, section 1, Perry Township, with only a small showing of gas, has been plugged. In section 4, Jackson Township, East Ohio Gas Co. No. 1 Amanda Smith, at a depth of 2,850 feet, is fishing.

In Summitt County, section 1, Tallmadge Township, Pawnee Corp. No. 2 Board of County Commissioners was a dry hole.

Ohio Fuel Gas Co. staked a location on the Grant Alleman farm, section 2, Clinton Township, Wayne County.

KENTUCKY FIELDS

Three completions were reported in the Kentucky fields. Major Washburn No. 3 Shockly Brothers, in McLean County, near Livermore, Ky., had an initial production of 50 bbls. after a shot. In the same district, Sunflower Oil & Gas Co. No. 7, on the H. Howard farm, was a dry hole. In a graveyard for the burial of colored people, same county, Kentucky Producing Co. and others No. 1 was a dry hole.

INDIANA FIELDS

In the Indiana fields one completion was reported. Staves Drilling Co. No. 1 on the Leopold Herr farm, section 16, Troy Township, Perry County, was a dry hole. In the same county, section 8, Anderson Township, Haney & Hollingsworth No. 1 was drilling at 380 feet on their Mamie Sshortz lease. The same operators No. 1, on the Jacob Houser estate, section 4, same township, is down 290 feet, and in section 9, Haney & Hollingsworth No. 1, T. and M. Schwartz farm, has been shut down.

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William Thompson and others have rigged up No. 2 J. V. Scott, located 2,000 feet northeast of a dry hole in the F. A. Wheeler Survey.

Two completions were recorded for the Anahuac field, Humble Oil & Refining Co. No. 3 Engels, located in section 50, flowed 29 bbls. per hour through a quarter-inch choke from a total depth of 7,085 feet, and in the northern part of the field Sun Oil Co. No. 9 White flowed 27 bbls. per hour through a quarter-inch choke from a depth of 7,084 feet.

At the Turtle Bay field, Chambers County, Stanolind Oil & Gas Co. is preparing to sidetrack at 5,400 feet after the hole had been plugged back from a depth of 7,459 feet. The hole will be redrilled to the 6,600-foot sand where it tested several hundred feet of oil and some salt water on a drill stem test made a few weeks ago. Southeast of the discovery well in the M. A. Caroll Survey, No. 2 Middleton is rigged up and will be spudded during the week.

On the east side of the Dickinson field, Galveston County, Humble Oil & Refining Co. No. 1 Wilson, located in the A. E. Edwards Survey, was completed at 8,042 feet and flowed 342 bbls. in 12 hours through a quarter-inch choke with tubing pressure 1,350 pounds and casing pressure 2,200 pounds. Perforations were made in the casing from 7,981-84 feet. There are four wells scheduled for completion during the week. Pure Oil Co. No. 3 Shelor, located in the B.B.B.&C. Survey, is bottomed in sand at 8,052 feet and 7-inch casing was cemented at 8,025 feet. To the south in the J. Sellers Survey, Humble Oil & Refining Co. No. 5-B Stewart cored broken sand showing oil at 8,037-48 feet and is bottomed at 8,050 feet with 7-inch casing cemented at 8,029 feet. The same company's No. 2-B Bayou Development Co. is preparing to drill plug after 9⅝-inch casing was cemented at 7,956 feet. To the south in the Gillock extension area, Coast Petroleum Co. No. 3 Stewart is running casing preparatory to testing at a total depth of 8,565 feet.

TEXAS COAST

	No. wells	Bbls.
Anahuac	57	6,056
Barbers Hill	180	17,439
Conroe	896	43,738
Dickinson	19	1,930
Hastings	58	6,097
High Island	63	6,610
Hull	183	5,679
Humble	270	3,397
Manvel	104	7,412
Mykawa	36	4,263
Pierce Junction	65	2,978
Pickett Ridge	9	1,286
South Houston	11	1,564
Sugarland	50	5,497
Thompson	193	10,514
Tomball	197	6,509
Miscellaneous	...	98,681
Total	...	229,650

LOUISIANA COAST

Black Bayou	15	2,710
Bosco	58	13,498
Caillou Island	14	10,922
Cameron Meadows	22	5,950
Gillis	35	15,437
Jeanerette	2	1,750
Lafitte	4	3,784
Lake Barre	25	9,585
Leesville	78	14,439
Tepetate	8	2,639
Roanoke	17	6,070
Sulphur	58	4,098
Miscellaneous	...	46,732
Total	...	137,614
Total Gulf Coast	...	367,264

Herschel H. Cooper, consulting geologist, of San Antonio, Tex., addressed San Antonio realtors last week on the effect of a growing oil industry on the business conditions of Southwest Texas.

Completions and Operations in New York-Pennsylvania Gas Field

By R. C. CONINE

COUDERSPORT, Pa., Mar. 30.—There were no completions in the New York-Pennsylvania Oriskany gas sand fields in the week ending March 27. Godfrey L. Cabot was drilling cement at 4,591 feet on the H. Decker farm, Westfield Township, Tioga County. Producers Power & Light Co. was casing at 4,344 feet on the Francis Johnson farm, Clymer Township, same county. Other Pennsylvania operations follow.

Pennsylvania Operations

Potter Development Co. was drilling at 3,893 feet on the A. Karhan farm, Clymer Township, Tioga County. Miller Ake was drilling at 4,610 feet on the Walter Burrell farm, Genesee Township, Potter County. New York State Natural Gas Co. was rigging up on the D. Rapan farm, same township and county. Sylvania Corp. was idle at its location on the George McCutcheon farm, Harrison Township, same county. New York State Natural Gas Co. was building a rig on the F. Whitney farm, Bingham Township, same county. Sylvania Corp. staked a location on the J. Steadman farm, Genesee Township, same county. H. C. Drilling Co. was moving in on the Lesser and Louner farm, Kinzua Township, Warren County.

New York Operations

Belmont Quadrangle Development Co. was shut down at 3,140 feet on the Thomas Burns farm, Alma Township, Allegany County. Decker and others were drilling at 4,075 feet on the same farm. Belmont Quadrangle was drilling at 765 feet on the J. O'Hara farm, Willing Township, same county. On the same farm Cunningham Natural Gas Co. was drilling at 610 feet. Schrack and others were building a rig on the Markey estate property, same township and county. Utica Natural Gas Co. was shut down at 875 feet on the William Grimm farm, Western Township, Oneida County. Property Shares was shut down at 950 feet on the R. Skinner farm, Westmoreland Township, same county. Natural Gas Producers was shut down at 575 feet on the C. Ankin farm, Rome Township, same county.

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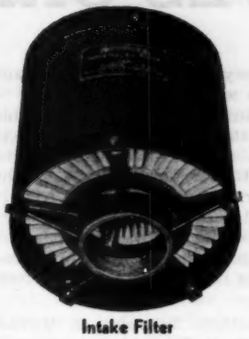

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Eastern Field Report

By STAFF CORRESPONDENT

BIG WEST VIRGINIA GAS WELL GIVES ORISKANY HIGH MARK

PITTSBURGH, Pa., Mar. 31.—The largest gas well to date in the deep sand drilling in West Virginia was completed during the week. In Elk district, Kanawha County, the Columbian Carbon Co. completed the No. 4 on the G. and D. Copenhaver farm in the Oriskany sand at a total depth of 4,843 feet and it had a natural volume of 1,200,000 feet a day which after a gelatin shot increased to 10,000,000 feet a day. The rock pressure at the end of 12 hours was 1,610 pounds.

The location of this test on the Milliken anticline is about 4,000 feet south of No. 1, and on Lick Branch, approximately three-quarters of a mile from the mouth of the run and Little Sandy Creek. No. 3 on this farm, which is about 2,000 feet north, 30 degrees east, of No. 1 and also on Lick Run, is drilling at a depth of 4,752 feet, in Brown shale.

In this district, the same company has reached a depth of 4,872 feet in deepening No. 1 on the W. L. Burdette farm. West of Coopers Creek in this district, Columbian Carbon Co. reached 3,900 feet in the test on the M. M. Robertson farm. West of Coopers Creek and south of the Elk River on the Elkland Improvement Co. (Barlow farm), this company is drilling at 1,600 feet. Benedum & Trees are rigging up No. 2 on the Mary C. Wingfield farm and the Yoak Oil & Gas Co. has rigged up the second test on the W. T. and J. H. Goshorn farm.

In Malden district, Godfrey L. Cabot, Inc., has reached a depth of 4,842 feet in the deep test on the William B. Tompkins farm, and 1,200 feet in No. 9 Campbells Creek Coal Co. lease, on which a rig is also standing for No. 10. On the W. D. Lewis farm, same operator recovered the tools lost at 1,870 feet in the test on the W. D. Lewis farm. The United Carbon Co. has built a road to the location for a test on the J. Q. Dickinson farm. South Penn Oil Co. is drilling at 3,120 feet in the second test on the Katherine C. Scott farm.

In Loudin district, Kanawha County, the test of H. C. Zogg and others on the R. H. Dunn farm was a failure in the Oriskany sand but has about 50,000 feet of gas in the Brown shale. Here Godfrey L. Cabot, Inc., is down 878 feet in the No. 2 on the Kanawha Land Co. The United Carbon Co. is drilling at 1,875 feet on the C. C. Dickinson farm. In Poca district, W. O. Zeibold and others remain shut down at 4,122 feet in the test on the D. A. Griffith farm.

SOUTHEAST OHIO

In Athens County, Ohio, the Ohio Fuel Gas Co. drilled No. 6,063 on the Sunday Creek Coal Co., Fraction 35, Dover Township, through the Clinton sand to a depth of 3,695 feet. There was a very small showing of gas and the hole will be plugged.

In Litchfield Township, Medina County, the Litchfield Oil & Developing Co. completed a test on the Gladys Hopler farm, Lot 17, in the Berea grit at a depth of 353 feet. It produced 2 bbls. the first day after shot. A second test was completed by this company on the same farm and after shot it produced 1 bbl. the first day.

In Chatham Township in Medina County, E. R. Edson & Son Co. completed No. 74 Ed G. Miller, in the Berea grit at a depth of 500 feet. It produced 3 bbls. the first day after shot. On Tract 13, Lots 2 and 3, this Township, the Oko Oil & Gas Co. drilled No. 71 on the Henry Essig farm through the grit to a depth of 380 feet. It was a dry hole.

SOUTHWEST PENNSYLVANIA

In South Franklin Township, Washington County, Pennsylvania, E. H. and J. B. Tague reached a depth of 2,786 feet in the No. 1 on the Hiram McClain farm and shut down. The top of the Fifth sand was at 2,758 feet and extended to 2,784 feet with an oil showing at 2,779 feet.

In Morris Township, Washington County, the Carnegie Natural Gas Co. deepened No. 1 Minton to 3,068 feet. The top of the Fifth sand was at 3,031 feet with water showing at 3,049 to 3,050 feet. It is a dry hole.

In Amwell Township, Washington County, the Union Gasoline & Oil Corp. struck a heavy volume of gas in the Gantz sand at 2,679 feet, in the test on the Moninger farm. The gauge was 4,000,000 feet a day and the well is shut in for a test. On the Thomas Bebout farm this company is drilling at 1,080 feet.

In South Strabane Township, Victor Behm and others had reached 1,700 feet in a test on the William Paul & Son farm. In Morris Township, John Conklin and others were running 5⅛-inch casing in the test on the H. Sanders farm which is being deepened. The Duquesne Gas Co. is rigging up on the J. M. Clutter farm. Burleigh Wright is drilling at 1,100 feet on the Frank Yoders farm. There was 68,000 feet of gas in the shale at 130 feet. The New Oil & Gas Co. has completed the rig on the McVey farm.

In Richhill Township, Green County, the Natural Gas Co. of West Virginia found the Fourth sand at 3,125-55 feet in the test on the S. S. Leslie farm. The depth is now 3,165 feet. On the Albert E. Lyons farm, this company is drilling at 1,860 feet. The Natural Gas Co. of West Virginia drilled through the Gordon sand in the test on the Braddock farm with the sand showing at 2,725-33 feet and about 210,000 feet of gas at 2,728 feet. On the T. H. Holmes farm, this company is drilling at 1,660 feet. Wasmuth & Co. are drilling at 1,240 feet in the test on the Rayle farm.

In East Bethlehem Township in Washington County, James Hagerman is down within a few feet of the top of the Fifty-foot sand on the Emory heirs farm near Millsboro and shut down. In Perry Township, Fayette County, the Carnegie Natural Gas Co. is drilling at 2,915 feet on the Lauder farm.

Deep Test

In South Shenango Township, in Greene County, the Carnegie Natural Gas Co. is drilling in the White Medina in the deep test on the Gertrude Scott farm. The top of the Clinton sand was at 4,319 feet and it extended to 4,335 feet. The top of the White Medina sand was at 4,415 feet and it is very hard.

WEST VIRGINIA

In Grant district, Ritchie County, West Virginia, R. C. Jackson and others completed a second test on the John J. Lanhan farm at 2,039 feet, Big Injun sand, and it is making 2 bbls. a day and about 75,000 feet of gas. H. N. Rinehart completed No. 8 on the H. N. Rinehart farm at 1,982 feet, Injun sand, which was dry, but it will make a quarter barrel pumper in the Maxon sand at a depth of 1,740 feet.

In Clay district, Ritchie County, F. E. Pritchard completed a 1-bbl. well on the D. M. Bradford farm in the Squaw sand at a depth of 2,175 feet.

In DeKalb district, Gilmer County, the Hope Construction & Refining Co. cleaned out its No. 1 on the Fred S. Wilt farm and increased production from 1 bbl. to 4 bbls. a day.

Gas Wells

In Boone County, West Virginia, there were several completions. In Washington district, the Owens Illinois Glass Co. completed No. 3 on the J. G. Roberts farm at a depth of 2,130 feet as a gas well gauging 236,000 feet a day. The Big Lime was at 1,382-1,598 feet with gas at 1,452 feet; the Big Injun sand was at 1,598-1,629 feet; the Berea sand was at 2,079-2,104 feet, with gas at 2,080-90 feet. In this district, this company completed No. 14 on the Little Coal Land Co. tract at a depth of 2,375 feet. The Big Lime here was at 1,635-1,835 feet; the Big Injun sand at 1,835-98 feet; the Berea sand at 2,347-73 feet, with 14,000 feet of gas at 2,350 feet.

In Scott district, Boone County, the Owens Illinois Glass Co. completed No. 3 H. C. Ballard at 2,008 feet. The total gauge is 229,000 feet a day.

In Sherman district, Boone County, the Pure Oil Co. completed No. 80 on the Federal Coal Co. tract in the Salt sand at a depth of 1,078½ feet. It gauges 204,960 feet a day. On the Lafollette, Robson & Prichard Tract B & C, Pure Oil Co. completed No. 41 at 2,902 feet. The Big Lime was at 2,224-2,411 feet; the Big Injun sand at 2,411-44 feet; the Berea sand at 2,858-94 feet, with about 83,040 feet of gas at 2,873-88 feet.

In Cabell County, the West Virginia Gas Co. completed a test on the George W. Savage farm in McComas district at a depth of 3,235 feet, Brown shale. It is a gas well gauging 184,000 feet a day. The gas was found in the Brown shale at 3,085-3,215 feet, the other sands being dry.

In Raleigh County, Godfrey L. Cabot, Inc., completed No. 10 on the Beaver Coal Co. tract in Slab Fork district at a depth of 3,403 feet. The Big Lime was at 2,785-3,317 feet, with about 79,700 feet of gas showing at 3,317-74 feet. It will be acid shot.

In Ritchie County, Smith & Hendershot completed a test on the U. G. Bonnett farm in Murphy district in the Berea sand at a depth of 2,775 feet. There was a small showing of oil and after shot, the test had a gauge of 800,000 feet a day.

In Wetzel County, Null & Moorhead completed a test on the Archie Church farm in Church district as a small gas well at a total depth of 3,150 feet; the gas is from the Thirty-foot and Bayard sands.

Canadian Oil Imports

OTTAWA, Ontario, Mar. 28.—Imports of petroleum, asphalt and their products into Canada in December, 1935, were valued at $2,255,859 or 54.1 per cent below the November valuation of $4,918,747. The chief sources of supply, with percentages, were: United States, 90.8; Colombia, 5; Venezuela, 2.9.

Crude petroleum imports in December totaled 55,639,590 gallons from the following countries: United States, 48,001,089; Colombia, 3,906,089; Venezuela, 3,732,412. November imports of crude petroleum amounted to 137,399,424 gallons.

Ontario Gasoline Law

TORONTO, Ontario, Mar. 28.—Sale of gasoline by grade in Ontario will be enforced by the provincial government under a bill before the legislature. The grading plan, which may not be made effective until 1937, is aimed at dealers adulterating gasoline. A proposal by an opposition member, A. H. Acres, to increase the gasoline tax from 6 to 9 cents as an alternative to a provincial income tax was definitely rejected by Premier Hepburn.

Revenue from the Ontario gasoline tax, estimated or the fiscal year ending March 31 at $15,000,000, has already definitely exceeded that figure.

West and North Texas

RENEWED DRILLING ACTIVITY IN WESTERN TEXAS COUNTIES

By L. E. BREDBERG

FORT WORTH, Tex., Mar. 30.—West Texas no longer has to take a back seat for East Texas in so far as drilling operations are concerned, for the Permian Basin, including southeastern New Mexico, which is operated along with West Texas by the majority of companies, has more activity now than the eastern portion of Texas. This week there were 41 locations staked in West Texas, more than have been reported for one week within the past six years, which shows the upturn in interest and attention in this district. During the same seven-day period there were 26 tests completed, all proving producers except one wildcat in Winkler and a dry hole in Fisher County.

All producing areas in the district are witnessing renewed drilling activity, and wildcat locations are being staked every week to test unexplored areas in which leases are rapidly expiring, and in which the best looking geological features are to be found.

Another Ordovician Test

The Gulf Oil Corp. has staked location for its second Ordovician test in the Sand Hills area of western Crane County. This location, in the SE quarter of section 18, Block B-21, falls 1½ miles to the northeast of the company's recently completed deep producer in this area, which opened the second Ordovician producing pool in West Texas. The Humble Oil & Refining Co., which last week completed a large producer 1,800 feet in the Big Lime, a new factor in drilling and producing in the Permian lime in the basin, has staked location for a second test in section 11, Block B-27, on the Tubbs ranch, which has become one of the most interesting areas in West Texas, especially from a geological standpoint.

The extreme southern tip of Crane County is to be tested again. Rider and others have spudded in a Permian lime test in section 2, W. L. Wilkerson Survey, on the Thaxton ranch, which is about 4 miles northwest of a dry hole drilled last year, and 3 miles south of a proposed 7,500-foot test to be drilled by the Eppenauer Drilling Co.

Deep Showing in Ector

Sun Oil Co. and Atlantic Oil Producing Co. No. 1 Holt, in the SW cor. section 5, Block 43, Township 1n, T.&P. Survey, a small producer about 2½ miles north of the Cowden field in Ector County at total depth of 4,071 feet, has been deepened to 4,792 feet and acidized with 3,000 gallons, after showing some saturation between 4,765 feet and the total depth. It had not yet been tested.

Acidation of another well in Ector County proved extremely successful, so much so that other wells already completed in the Goldsmith field may be acidized to increase their production. This well, Gulf Oil Corp. No. 6 Goldsmith, in section 27, Block 44, Township 1s, T.&P. Survey, a quarter of a mile southwest extension to the Goldsmith field, is the first in the field to be treated, although other wells have been given nitroglycerin shots to increase their production. It was treated with 5,000 gallons of acid, using 1,000 gallons in the first load, the well cleaning itself after this dumping, then giving it 4,000 more gallons of acid. It gauged 720 bbls. of oil the first five hours after treating with the acid at total depth of 4,145 feet, or about twice as much as it made before treating. It was also gassing 7,000,000 feet daily.

Yoakum Wildcat

The southeast Yoakum County wildcat of Cascade Oil Corp. and Honolulu Oil Corp. on the Bennett ranch, in section 678, John H. Gibson Survey, the most interesting test in West Texas in several months, is rapidly losing its interest after having been treated with 2,000 gallons of acid at 5,112 feet, swabbing only 20 bbls. of oil per day after acidation, then drilling ahead to 5,190 feet in lime with production unchanged. Several months ago this test showed for a commercial producer at 5,090 feet. It was shut down for three or four months on account of litigation, the hole nearly filling with oil during that period. It was then deepened to 5,112 feet, showing some water, which was believed to be coming from behind the casing as it was soon exhausted. Failing to show more oil after acidizing and deepening gives the test a discouraging appearance at this writing. It is an extreme wildcat promising to open a vast new section in the district to exploratory drilling in the near future if it proves a commercial producer.

May Be Completed for Gasser

Walsh and Harry Adams Corp. No. 1 Averitt, in section 228, Block G, W.T.R.R. Survey, 3 miles northwest of Seminole in Gaines County, which has struck many different gas horizons, causing a fishing job nearly every time it struck new gas, is still fishing for tools lost when it uncovered 12,000,000 feet at 4,910 feet. There is talk of it being completed as a gas well at this depth, which is 90 feet above the contract depth, 5,000 feet. However, if this test is so completed, a second test will no doubt be sunk on an offset location at once. The many gas showings found in this test have made it one of the most interesting wildcats in the district. Its location on a trend between the Means pool in northern Andrews County and the potential discovery in southeast Yoakum County also places it in an interesting geological position.

Deep Wildcat Location

Stanley Thompson of Fort Worth staked location for an Ordovician test on the Elsinore Cattle Co.'s ranch in the south central part of Pecos County this week. Same falls in section 53, Block D, G.C.&S.F. Survey, 7½ miles south of Vacuum Oil Co.'s No. 1 Elsinore, dry hole drilled several years ago to 4,486 feet in section 60, Block D, Mr. Thompson holds a large block under this and adjacent ranches. The remote location and the depth to which this test is to be drilled makes it an important one for the district.

Winkler Duster

Humble Oil & Refining Co. abandoned its No. 1-C Walton in section 21, Block 74, 1¼ miles west of its No. 1-D Walton in section 20, which was recently completed for a producer. Number 1-C struck sulfur water at 3,185-3,205 feet and was ordered plugged at 3,201 feet in lime. This test is about midway between the Leck and Scarborough pools, but apparently is too far to the west for production in this part of Winkler County.

Ranger and Wichita Falls

Julian Hall has obtained a lease from Dean Brothers, in which the Premier Investment Co. of Fort Worth has a half interest, in the Pratt pool in Stephens County, and is to deepen No. 9 D. C. Pratt from 2,000 feet to 3,900 feet to the Ranger sand in the hope of finding production in that horizon. The wells in this old pool produce at from 1,900 to 2,000 feet from sand, but the Texas Co. drilled a deep test in the pool some time ago, this well flowing 1,000 bbls. before it was drilled into water, the tools lost and the hole junked. Location of the test to be carried deeper is in section 69, Block 6, T.&P. Railway Survey. Dale Smith, contractor of Fort Worth, is to do the work.

Another deep test in eastern Shackelford County has been completed as a dry hole. Roeser & Pendleton, Inc., of Fort Worth, drilled this on a block assembled by Merry Brothers and Perini of Abilene. Location is in section 25, Block 8, T.&P. Survey, on the Mrs. J. F. Lynch lands, about 3½ miles southwest of a test that showed for a producer in section 1,549, T.E. &L. Survey, but which had to be junked because of a premature nitroglycerin shot damaging the casing. A north offset to that test proved a dry hole. The area does not look favorable now for Ordovician production, although tests to the south or east of the Pitzer & West junked hole may pick up oil in the Ellenberger the same as that test did. Humble Oil & Refining Co. purchased a half interest in the Pitzer and West block and drilled the dry north offset, and may later drill another test or two in the area.

Charles J. Kleiner, of Cisco, is to drill a shallow wildcat 9 miles northeast of Baird in Callahan County, contract calling for a 1,200-foot hole. Location is in section 96, Block 12,

Scouts in North Central Texas district. Reading left to right, top row: M. M. (Cy) Bates, Humble Oil & Refining Co.; Carroll Mitchell, Continental Oil Co.; E. A. Keeler, Phillips Petroleum Co.; F. E. Hodgins, Texas Co.; William A. (Billy) Maloney, Gulf Production Co.; John (Tiny) Mouser, Sinclair Prairie Oil Co. Bottom row: T. E. (Todd) Eshleman, Wichita Elevation Service; Joe Clingan, Shell Petroleum Corp.; John Mulligan, Magnolia Petroleum Co., and W. G. (Guy) Sinclair, Gulf Production Co., and head of the Wichita scouts.

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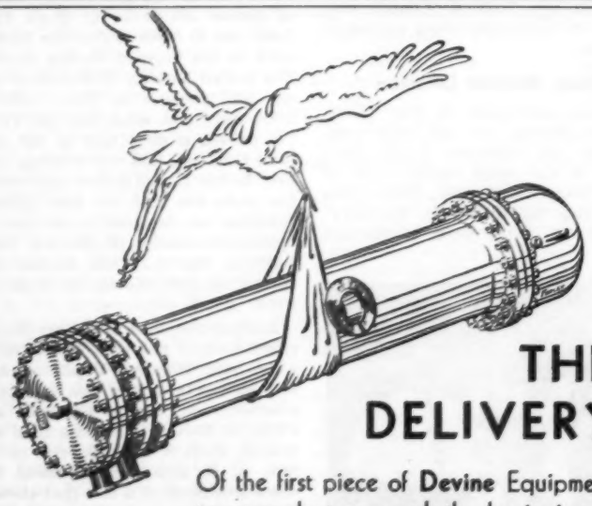

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REFINERY EQUIPMENT

DESIGN—FABRICATION—ERECTION

T.&P. Survey. A test 12 miles north of Baird, but over in Shackelford County, is to be drilled by A. K. Turner and G. W. Ferguson in section 73, Block 12, T.&P. Survey, on the J. F. Dyer ranch. This is in semi-wildcat territory.

Pitzer and West No. 1 J. R. McCluskey, in section 1,104, T.E.&L. Survey, 1½ miles northeast of production at South Bend, in southern Young County, and one-half mile south of production in the deep sand and lime pays, logged the deep sand at 2,747-49 feet and swabbed 12 bbls. per hour on a three-hour test last week and ran tubing to make test. It extends and opens more territory to deep production in this area.

Cooke County

Texas Co. continues to purchase leases in northern Cooke County in the Delaware Bend area and over into Grayson County. This leasing campaign also extends over the river into Love County, Oklahoma. The company is to drill a 7,000-foot test 4 miles northwest of the Delaware Bend area in northern Cooke County, and now have a seismograph crew checking the area for more information as to the geology on same.

Wilbarger Test

F. P. Lain and others are preparing to drill a 3,500-foot cable tool test on the A. Allison ranch in section 43, Block 12, H.&T.C. Survey, 5 miles northeast of Vernon in Wilbarger County. The associates have a 5,000-acre block surrounding the location.

K. R. March, of Fort Worth, is preparing to drill a 2,000-foot test on the W. B. Self ranch in the Allen Hines Survey in the south central part of Baylor County. Same is located on a 1,500-acre block and is to test the Portwood sand, which it should log around 1,850 feet. It is located on a regional "high."

Panhandle District

The Panhandle district has been given a 2,000-bbl. daily increase in allowable by the railroad commission. This brings the daily allotment to 60,800 bbls., the highest allowable granted this district in several years. There are 2,652 producing wells in the district having a rated daily potential of 646,999 bbls.

NORTH TEXAS COMPLETIONS

North Texas completions with their top of sand and total depth records and initial production were as follows:

Archer County

Continental Oil Co. No. 1 V. Seay, dry 1,466 feet. Fain-McGaha No. 5 Morrison, dry 1,429 feet; No. 6 Morrison, dry 1,340 feet. Hamilton Petroleum Co. No. 22 Abercrombie, 1,171-1,181 feet, 75 bbls. H. Hines No. 3 Ward A, 933-940 feet, 75 bbls. Petroleum Production Co. No. 19 Richardson D, 1,233-1,238 feet, 40 bbls. Steele & Scott No. 3 Garvey, 806-817 feet, 25 bbls.

Baylor County

Consolidated Oil Co. No. 1 Portwood Y, 1,414-1,420 feet, 150 bbls.

Clay County

H. T. Merrill No. 2 C. Lennen, 520-528 feet, 10 bbls.

Cooke County

Dalworth Oil Co. No. 1 A. Bier, dry 800 feet. Ray Oil Corp. No. 1 A. Reiter, dry 985 feet. Ruwalt-Couch No. 1 Ramsey, dry 1,701 feet. Texas Co. No. 9 Walterscheid, 728-747 feet, 10 bbls.

Foard County

Shell Petroleum Co. No. 2 Tarver B, 1,995-2,037 feet, 50 bbls.

Montague County

Perkins & Cullum No. 6 Howard, 1,341-1,364 feet, 25 bbls.

Wichita County

Bourbon Royalty Co. No. 2 Watkins, 664-680 feet, 15 bbls. L. T. Burns No. 10 Waggoner Brothers, dry 1,766 feet. G. W. Cooper No. 35 Waggoner Brothers, 1,300-1,318 feet, 25 bbls. Jennings Drilling Co. No. 2 Grace Jennings A, 958-963 feet, 10 bbls. A. B. Wharton No. 5 Waggoner B, 1,592-1,596 feet, 50 bbls. Wolfe and others No. 1 Fisher, dry 780 feet. F. L. Pinkerton No. 2 E. E. Hardin, 440-448 feet, 5 bbls.

Wilbarger County

Clark & Cowden No. 4 Waggoner B, dry 1,986 feet. King Royalty Co. No. 2 Waggoner N, 1,554-1,557 feet, 127 bbls. Lawson & Leavell No. 4 Waggoner A, dry 1,761 feet. Magnolia Petroleum Co. No. 25 Waggoner H.&T.C., dry 1,790 feet. W. W. McDonald No. 10 Waggoner A, 2,447-2,475 feet, 25 bbls.

Jack County

Gene Sewell No. 3 D. R. Sewell, 285-294 feet, 10 bbls.; No. 4 D. R. Sewell, 284-297 feet, 10 bbls. C. C. Bloodworth No. 3 D. R. Sewell, 278-287 feet, 5 bbls. Clark & Robinson No. 2 Singleton, 740-766 feet, 10 bbls.

Young County

Alexander & Beavers No. 4 Hamilton, dry 1,000 feet. Brazelton and others No. 1 Howard, dry 1,008 feet. L. T. Burns No. 1 Rushing, 901-903½ feet, 150 bbls. Cato No. 9 Hamilton, 884-909 feet, 30 bbls. Duncan, Holt & White No. 3 Benson, 893-905, 25 bbls. Hawkins No. 1 McGrayer, 603-610 feet, 10 bbls. David S. Johnson No. 1 Hamilton, dry 1,002 feet. Sams & Kubecka No. 2 Predo, dry 549 feet. W. R. Stafford No. 1 Cantwell, dry 669 feet. Underwood Drilling Co. No. 12 Campbell A, 861-887 feet, 150 bbls. Wichita Production Co. No. 8 Hamilton A, dry 1,031 feet. Roberts Oil Corp. No. 1 Brogden, 3,673-3,725 feet, 900 bbls. E. C. Stovall No. 17 Stovall, dry 4,315 feet.

PANHANDLE COMPLETIONS

Texas Panhandle completions, with their top of sand and total depth record and initial production were as follows:

Gray County

Bradshaw Oil & Gas Co. No. 1 Sullivan, 2,612-3,080 feet, shot, plugged back to 2,980 feet, 18,700,000 feet of gas.

Empire Gas & Fuel Co. No. 3 Meers, 3,114-3,300 feet, 262 bbls. on pump.

Skelly Oil Co. No. 33 East Schafer, 3,225-3,330 feet, shot, 947 bbls.

Moore County

Anderson and Kerr No. 1 Hilton, 3,110-3,473 feet. Plugged back to 3,310 feet, shot, 12,200,000 feet of gas.

No. 1 Morton, 2,795-3,407 feet, plugged back to 3,100 feet, 92,780,000 feet of gas.

Texoma Natural Gas Co. No. 3 Thompson, 3,000-3,402 feet, 20,400,000 feet of gas.

Hutchinson County

Barnsdall Oil Co. No. 3 Lewis, 2,938-3,008 feet, shot, 1,128 bbls. on pump.

Daw Oil Co. No. 1 Hodges, 2,985-

3,023 feet, shot, 136 bbls. oil and 124 bbls. water per day on pump.

Wheeler County

Skelly Oil Co. No. 15 Johnson, 2,380-2,522 feet, 1,492 bbls. per day.

WEST TEXAS COMPLETIONS

Completions in the West Texas fields, with their top of sand and total depth records and initial production were as follows:

Crane County

Gulf Oil Corp. No. 128 McElroy, 2,725-2,909 feet, shot, 1,643 bbls. No. 129 McElroy, 2,705-2,913 feet, shot, 902 bbls. Humble Oil & Refining Co. No. 1 Tubb, 4,284-4,379 feet, acidized with 2,000 gallons, 861 bbls. of oil. Magnolia Petroleum Co. No. 4 Edwards, 3,336-3,559 feet, acidized, 1,747 bbls. in four hours.

Continental Oil Co. No. 4-C Cowden, 2,326-2,452 feet, shot and acidized, 451 bbls. Gulf Oil Corp. No. 1 Henderson, 3,240-3,550 feet, acidized, 773 bbls. in two hours.

Culberson County

Anderson and Prichard No. 1 Borders, dry and abandoned at 5,001 feet, elevation 4,565 feet.

Ector County

Stanolind Oil & Gas Co. No. 27 Cowden, 4,236-4,285 feet, shot, 737 bbls.

Gulf Oil Corp. No. 7 University-State, 3,485-3,700 feet, shot, 310 bbls.; No. 2 Goldsmith, 4,112-4,170 feet, 1,052 bbls. Dunning and others No. 1 Scharbauer, total depth 4,175 feet, elevation 3,159 feet, 150 bbls.

Fisher County

Southern Oil Corp. No. 2 Parker, 3,129-3,134 feet, 252 bbls. General Crude Oil Co. No. 3 Barrett, dry and abandoned 3,129 feet, elevation 1,793 feet.

Howard County

Continental Oil Co. No. 19 Settles, 2,312-55 feet, 1,333 bbls.; No. 3-S Settles, 1,214-27 feet, 6 bbls. per hour on swab. Murray No. 5 Davis, 2,468-2,825 feet, shot, 1,238 bbls.

Continental Oil Co. No. 20 Settles, 2,274-2,400 feet, acidized, 773 bbls. Sinclair Prairie Oil Co. No. 3-B Denman, 2,532-2,826 feet, 713 bbls.

Jones County

Hughes No. 1 Bumpbass, dry and abandoned 2,455 feet. Humphrey No. 5 Dorsey, 2,063-67 feet, 435 bbls.

Ungren and Frazier No. 3-C Dorsey, 2,056-2,068 feet, 958 bbls.

Pecos County

Aero Gas & Oil Co. No. 2 Gregg, 1,451-65 feet, shot, 220 bbls. Kone Production Co. No. 3 Pecos Valley, 1,541-68 feet, shot, 148 bbls. Eppenauer & Co. No. 1-A Reed, 1,074-1,301 feet, 494 bbls. per hour. Shell Petroleum Corp. No. 3-C Smith, 1,271-1,385 feet, acidized, plugged back to 1,379 feet, 30 bbls. per hour.

Stanolind Oil & Gas Co. No. 15-B Tippett, 360-395 feet, 356 bbls. The California Co. No. 12 Smith, 877-959 feet, shot, 35 bbls. Cardinal Oil Co. No. 5-A Smith, 466-521 feet, 52 bbls.; No. 37 Tippett, 390-440 feet, 108 bbls. oil and 10 bbls. water. Marathon Oil Co. No. 32-B Yates, 1,096-1,234 feet, 335 bbls. per hour.

Upton County

Texas Pacific Coal & Oil Co. No. 9-C Lane, 2,293-97 feet, acidized, 283 bbls. Hope Oil Corp. No. 3 Lane, 2,183-2,282 feet, acidized, 296 bbls. John Emch and Shell Petroleum Corp. No. 1 Gordon, dry and abandoned 3,740 feet, elevation 2,677 feet.

I. T. I. O. Co. and others No. 1-A Cordova Union, 2,045-2,135 feet, acidized, plugged back to 2,075 feet, 25 bbls. oil and 76 bbls. water per day.

Ward County

Stanolind Oil & Gas Co. No. 2 Martin, 2,482-2,518 feet, shot, 701 bbls. Humble Oil & Refining Co. No. 6 Richter, 2,478-2,575 feet, shot, 486 bbls. Texas Pacific Coal & Oil Co. No. 12 Jones, 2,280-2,535 feet, shot, 2,169 bbls. Richardson No. 28-B Johnson, 2,337-2,578 feet, shot, 909 bbls.

Cothran No. 1 Greene, 2,240-2,360 feet, shot, 340 bbls. Elliott and Hardesty No. 2 Wallis, gas pay 2,580-2,589 feet, 10,000,000 feet of gas; No. 7 Wallis, 2,355-2,612 feet, shot, 283 bbls. Eastland Oil Co. No. 2 Johnson, 2,460-2,498 feet, shot, 101 bbls. Eppenauer Drilling Co. No. 3-A Combes, 2,360-2,477 feet, shot, 489 bbls.

Winkler County

Magnolia Petroleum Co. No. 1 Colby, 2,097-3,067 feet, shot, 187 bbls. Gulf Oil Corp. No. 2-B Daugherty, 2,770-3,000 feet, shot, 364 bbls.; No. 11 Keystone, 3,309-70 feet, shot, 632 bbls. Sinclair Prairie Oil Co. No. 9 Cummins, 2,752-2,976 feet, shot, 711 bbls. Humble Oil & Refining Co. No. 1-D Walton, 2,772-2,930 feet, shot, 482 bbls.

Humble Oil & Refining Co. No. 5-A Walton, 2,937-3,115 feet, shot, 156 bbls.; No. 2 Howe, 2,850-2,982 feet, shot, 680 bbls. Richardson No. 4 Sealey, 3,070-3,130 feet, shot, 383 bbls. Westbrooks No. 3 Daugherty, 2,745-3,000 feet, shot, 549 bbls; No. 6 Daugherty, 2,763-3,000 feet, shot, 2,495 bbls. Atlantic Oil Producing Co. No. 4-J Hendrick, 2,784-3,022 feet. shot, 887 bbls. The Texas Co. No. 1 Daugherty, 3,058-3,297 feet, plugged back to 3,235 feet, 11 bbls. oil per day. Gulf Oil Corp. No. 1 Hill, temporarily abandoned 4,170 feet, plugged back to 3,390 feet, elevation 2,809 feet.

Retail Gasoline Hiked

Members of the Progressive Independent Gasoline Dealers Association of Dallas, handling East Texas gasoline, met in that city on March 26 and agreed to raise the price of the retail product 2 cents per gallon to 14 cents, effective March 27. The increase was made through cooperation with wholesalers and refiners of the East Texas product, according to Fred Edwards, president of the association. This move by the retailers strengthens the price of the wholesale product in the field.

Canadian "Gas" Sale

OTTAWA, Ontario, Mar. 28.—Outside of Alberta and Saskatchewan, gasoline sales in the other seven provinces of Canada in 1935 were uniformly higher than in 1934. The totals were: Prince Edward Island, 2,832,000; Nova Scotia, 22,274,000; New Brunswick, 15,185,000; Quebec, 102,178,000; Ontario, 272,681,000; Manitoba, 28,483,000; British Columbia, 43,410,000 gallons. With returns from Saskatchewan and Alberta for December still to come, the 1935 gas sales for all Canada already total 569,388,000 gallons compared with 534,782,000 gallons for all of 1934. The December figures showed marked increases in six provinces over December, 1934, with a slight decrease in New Brunswick.

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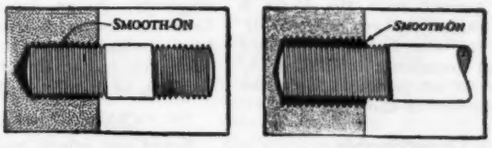

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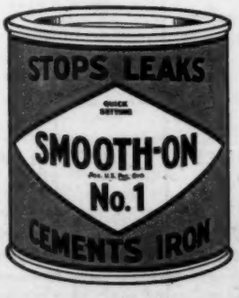

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East and East Central Texas

By
L. E. BREDBERG

SECOND TALCO TEST MAY BE BETTER THAN ORIGINAL WELL

DALLAS, Tex., Mar. 30.—Looking better than the discovery well of the Talco pool in the extreme northwest corner of Titus County, Humble Oil & Refining Co. and others No. 1 Hughes and King, in the Orlando James Survey, 2½ miles southwest of the discovery of Peveto and others on the Carr lands in the M. V. Delgado Survey, has been swabbing 60 bbls. per hour after drilling to 4,197 feet where it is now setting tubing preparatory to testing.

The well, which was started by the royalty owners of the tract, led by W. C. Windsor, has been taken over by the Humble Oil & Refining Co. as per agreement if the test showed for a producer. An 89-foot liner, of which 58 feet was perforated, was set on the bottom of the tubing. In coring from former total depth of 4,180 feet to the present total depth, 11 feet of solid saturated sand was reported. However, another report carried the information that some shale was drilled below the former saturated streak at 4,180 feet, and then more sand. Regardless of how much sand was cored, the test looks better than the discovery, which has been put on pump but no gauge reported as yet.

Associates in the Peveto and others test have formed the Pleasant Oil Co. They have laid a short small pipe line to connect with the Paris & Mount Pleasant Railway, a short distance to the west and have obtained a railroad commission tender for 15,000 bbls. of oil produced from the Talco discovery on the Carr lands.

Questionable

Humble Oil & Refining Co. No. 1 Mary Groves, located in the Ben Jones Survey, 2 miles due east of the Talco discovery, Titus County, is appearing as a dry hole as it drills ahead below 4,200 feet in lime without having gone into the Paluxy sand yet. Elevation is 309 feet and it topped the Georgetown lime at 4,115 feet, running way low as compared with the discovery which is producing from total depth of 4,208 feet with an elevation of 370 feet.

Humble Oil & Refining Co., largest holder of leases in the area, especially on acreage adjacent to the supposed fault, is moving in material for a test on the Myra Galt lands 1 mile east of the Talco discovery, and midway between it and the company No. 1 Groves. The company is apparently a firm believer in the area, and will soon prove to what extent the pool is to run to the east, and give an idea of the caliber of the pool. Offsets will no doubt be started to the well on the Hughes & King tract as soon as it is completed.

Seven permits have been granted for drilling tests in the Talco townsite, that town to undergo a drilling campaign similar to the one in Kilgore according to the number of railroad commission permits issued to drill. One operator paid $3,500 in cash and is to pay $10,000 out of oil for a 3-acre tract in Talco, which gives some idea of the prices being asked and paid for acreage in the area. It is the only area in the East Texas district that is especially interesting, consequently many operators, lease brokers and company land men are concentrating on the area, with the result that many tests will be drilled in the northern tier of East Texas counties, primarily along the Balcones Fault zone.

A test is scheduled for the area around Cuthand in Red River County, 6 miles north of the Talco discovery, and another deep test is reported proposed for the Whiterock area in the same county. Renewals are being obtained on some 7,000 acres of leases in a block centering around Rosalie in this county, in an area in which a test was abandoned at 3,600 feet last year. This test was drilled by Spear and others on the Bigson lands.

The southern Red River County test of the Midwest Oil Co. and Texfornia Oil Co. on the Hocker and Hughes lands, in the M.E.P.&P. Survey, will probably spud this week. This test is located about 9 miles east and a little north of the Talco discovery, in an interesting area. Lease prices around this test have been gradually increasing, especially since material started moving in on location, as is always the case.

Other Wildcatting

Beard and others have abandoned No. 1 Holly in the M. Kinsey Survey, 2 miles southeast of Chapel Hill in Smith County. Total depth is 4,418 feet and top of the Georgetown lime was reported at 4,403 feet. Elevation is 478 feet. A test 6½ miles northeast of Tyler, in the same county, was abandoned at 1,170 feet. This test was drilled by Thompson & Colby on the Walsh lands, in the S. Barnett Survey. Abandonment of these two wildcats leaves none drilling in Smith County at the present, the only drilling being done in same being on the west side of the East Texas field which extends over into Smith County.

Clark and Cowden staked location for a wildcat test on the M. Scott lands, in the H. Awalt Survey, 7 miles north of Fairfield in Freestone County, this week, and now have derrick up. This is a Woodbine sand test, there being no other active test in the county at this writing, although in the course of the past 12 months it has received a number of Woodbine sand tests, only two of which showed any kind of production. These two wells, located about 3 miles south of Turlington on the Ball lands, made gassers, from which the Lone Star Gas Co. is taking gas for its Long Lake-Waco trunk and distribution line.

Operations in Field

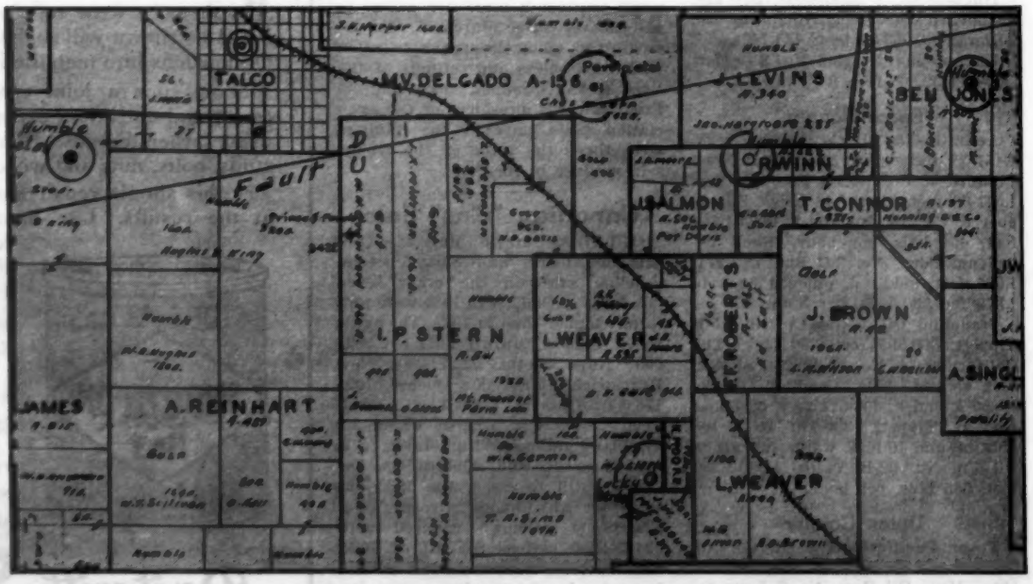
There are now 275 operations in the field, including locations, derricks, rigging up, drilling and shut down. Wells reported agitating and pumping at the end of February totaled 2,330, with 65 reported dead. The hourly potential factor was held by the Railroad Commission to 2.85 per cent of the hourly well potential.

East Texas Field

The Railroad Commission reports 148,363 acres proven in the East Texas field, which is about 26,000 acres more than reported one and one-half or two years ago. This increase in proven acres is due mainly to independent operators stepping out on the edges of the field and extending production all along the east side, and in some cases on the west, and making considerable extensions on the north and northwest side of the field in Upshur County. This increased acreage totals far more than many fields in other parts of Texas, and in other states, but is given little consideration in connection with the vast East Texas field because of its size. It is merely taken for granted.

The per acre density of the field for the week ending March 20 was one well to 6.41 acres, according to the commission. Major companies have a density of one well to 7.36 acres, whereas the independents have a density of one well to 5.19 acres. The density is becoming greater all the time with 50 to 60 wells being completed in the field each week. This week 62 wells were completed and locations were staked for 52 more. There were more pumpers completed this week than in any week previous. Sixteen wells were completed "on the beam," with one dry hole reported for the Rusk County portion of the field. One test, Magnolia Petroleum Co. No. 11 Zeigler,

(Continued on Page 76)



Northeastern Texas' new oil field near Talco, showing Peveto and others discovery well and other wells and locations nearby

North Louisiana, Arkansas

EIGHT NEW RODESSA WELLS; KEEPING PRODUCTION DOWN

By J. R. CRUMPTON

SHREVEPORT, La., Mar. 30.—Only routine activity in the proven fields of North Louisiana and Arkansas was reported during the past week. A number of deep drilling wildcats in each district were nearing the testing stage but none of them had developed anything at this writing. One wildcat in Ouachita County, Arkansas, reported a likely looking core but no results were obtained on first drill stem test. A Bienville Parish test is about checked out for a producing sand in the Trinity under the Oolitic lime gas horizon and is reported to be perforating casing to test a gas show in the lime.

Daily Average Production

The Rodessa field continues to produce below its allowable of 400 bbls. per well per day, the field showing an average output of 44,400 bbls. per day according to pipe line reports from the field. Following is the daily average for both North Louisiana and Arkansas pools for the week ending Saturday March 28.

NORTH LOUISIANA

	Bbls.
Bellevue	400
Caddo light	4,190
Caddo heavy	2,475
Converse	1,300
Cotton Valley	350
DeSoto and Red River	1,315
Elm Grove	405
Haynesville	2,375
Holly	155
Homer	2,570
Pleasant Hill	155
Rodessa	44,400
Sarepta-Carterville	485
Urania	2,615
Zwolle	1,270
Total	65,460

SOUTH ARKANSAS

Champagnolle	3,490
El Dorado	2,100
Lisbon	295
Miller County	870
Nevada	810
Smackover light	2,100
Smackover heavy	17,395
Stephens	560
Urbana	2,075
Total	29,695

The Rodessa field continues to hold the spotlight in this division, reporting eight completions, one of which was in the Cass County area of East Texas. This gives the East Texas part of the field four producers to date. An outpost well to the southwest on the trend is holding the center of interest at this time and has all the earmarks of being a producer in which case more than a mile of territory will be proven up.

The new Cass County producer was United Gas Public Service Co. No. 1 J. R. Jones Unit in the Ben Murray Survey. The well logged top of saturated lime at 6,000 feet, set 7-inch casing at 5,999 feet and was completed from a total depth of 6,037 feet flowing at the rate of 100 bbls. per hour through one-half inch tubing choke. The elevation on the location is 252 feet making a subsea depth bottom of 5,785 feet or 2 feet above the water level in the proven area of the field. Since the well shows 37 feet of saturated pay and other tests in the Cass County area have logged a thick body of the pay horizon, the southwestern trend of the Rodessa area is showing up better for bigger production than the northeastern trend. In the latter area several wells have failed to make good oilers but all of them have shown considerable gas and distillate.

Seven wells were completed in the Louisiana area of Rodessa. Arkansas-Louisiana Gas Co. No. 8 Rodessa Oil & Land Co., NW cor. SE NE section 22-23-16, made 40 bbls. per hour through a quarter-inch choke on tubing from total depth of 5,985 feet. Top of saturation was logged at 5,964 feet, tubing pressure registering 350 pounds and casing pressure 100 pounds. The same company's No. 1-B Rodessa Oil & Land Co., north and east in section 13-23-16, was completed making 10 bbls. per hour through a quarter-inch tubing choke from total depth of 6,003 feet. Saturated lime was cored from 5,961-64 feet and the casing was perforated from 5,960-72 feet, tubing pressure registering 2,000 pounds. Haynes Production Co. No. 4 Tyson, NW cor. NW NE section 14-23-16, flowed 32 bbls. per hour through 1¾-inch tubing choke from 6,081 feet, top of saturation being logged at 6,078 feet. On the northeastern trend, M. H. Marr No. 4 Hunter, section 13-23-16, showed for 20 bbls. per hour through seven-sixty-fourths inch tubing choke from perforated casing from 6,030-47 feet. The well showed salt water a few weeks ago when tested from total depth of 6,052 feet, was plugged back to 5,967 feet and cement drilled out to 6,047 feet. It was completed as a good well, registering 1,500 pounds tubing pressure and 1,550 pounds casing pressure. United Gas Public Service Co., discoverer of the field, reported three completions. Its No. 2 Brewer Unit, section 29-23-16, flowed initially 55 bbls. per hour on one-half inch tubing choke from 6,051 feet, taking 37 feet of pay zone contacted at 6,014 feet. Tubing pressure registered 1,400 pounds and casing pressure 1,200 pounds. No. 1 M. L. Pitts Unit, section 13-23-16, flowed 16 bbls. per hour through a quarter-inch choke on tubing from total depth of 6,081 feet, logging top of saturated lime at 6,026 feet. No. 7 Rodessa Oil & Land Co., section 15-23-16, was the best well of the three, flowing 78 bbls. per hour through one-half inch tubing choke from 5,990 feet.

Two shallow wildcats in Jackson Parish were abandoned as dry holes. George W. Zeigan No. 4 Louisiana Central Lumber Co., section 25-14-2w, abandoned at 1,781 feet and same operator's No. 5 was dry and abandoned at 1,770 feet. In DeSoto Parish, Jal Drilling Co. No. 5-A Scales, section 35-13-12, was completed making 220 bbls. per day from 2,451 feet.

Among the Deep Tests

Among the deep tests in the North Louisiana district being watched at this time is R. W. Norton No. 1 Spearman unit, section 18-23-15, on northeastern trend of the Rodessa field. With the hole bottomed at 6,600 feet, 7-inch casing was run into the hole which stuck at 6,057 feet and was cemented at that depth. The log shows a saturation topped at 5,971 feet and the base at 6,012 feet. From 6,012-22 feet, black shale was cored. The hole is presently bottomed at 575 feet subsea below the producing horizon of the field. Lide-Greer & Marr No. 1 Davis Brothers Lumber Co., section 12-16-5w, Bienville Parish, is reaming to set 7-inch casing at 6,145 feet and if a test is unsuccessful will probably plug back and perforate around 5,860 feet where a likely looking gas sand was cored. About 10 miles northeast of the Simmsboro gas area, Arkansas-Louisiana Gas Co. No. 1 C. E. Causey, section 32-19-2w, topped chalk rock at 2,430 feet, logged base at 2,639 feet, top of Blossom at 2,858 feet and is drilling ahead at 3,293 feet. The test is drilling to around the 5,000-foot level to test the Oolitic lime in the Glenrose of the upper Trinity.

Ohio Oil Co. No. 1 R. L. Holloway, section 23-21-10, Cotton Valley field, Webster Parish, is nearing the expected pay horizon. The test is coring at 6,744 feet and a previous test drilled a few years ago in the Cotton Valley field by Magnolia Petroleum Co. reported a good core at a total depth of 7,006 feet. The latter test was junked when 5⅓-inch casing failed to hold. In the southern part of Webster Parish in the Dubberly area, J. P. Evans No. 1 T. Crichton, section 35-18-9, set 9⅝-inch casing to protect the hole at 1,896 feet, logged red beds at 3,452 feet and is drilling in shale and lime at 4,025 feet. A. H. Tarver No. 2 Baker, section 36-8-12, a deep test in Sabine Parish, is drilling in lime at 5,000 feet. Boucher & Pace resumed drilling on a proposed deep test in Union Parish in the Farmerville area. After setting 10-inch surface casing at 890 feet, the test is drilling at 1,575 feet. It is contracted as a 5,000-foot hole.

Cass County

American Liberty Oil Co. No. 1 D. A. Maxie, John Collum Survey, is being tested and looks like a possible extension to the southwest of the Rodessa area in East Texas. The test cored streaks of saturation in the Dees sand from 5,976-96 feet and is coring ahead at 6,010 feet. The elevation on the location is 234 feet and at the present total depth it is 11 feet above the supposed water level in the Caddo area of the field. The same company No. 1 Marcus Rembo, J. H. Reeves Survey, has spudded in and set 16-inch surface casing at 250 feet. R. W. Norton No. 2 Mary Rives, John Collum Survey, has set 12¾-inch casing at 298 feet. Recent results in the Cass County area point to an extensive drilling campaign to extend the field to the southwest.

ARKANSAS

This district reported two completions, one a dry hole in wildcat territory in Ashley County in the southeastern part of the state, and a small pumper in the Rainbow field of Union County. The former, Seaboard Oil Corp. No. 2 fee, section 28-17-4, was abandoned as a dry hole at 2,492 feet. J. C. Buckbee No. 1 A. E. Sloan, section 14-17-14, Union County, is pumping 10 bbls. daily of pipe line oil from total depth of 3,100 feet.

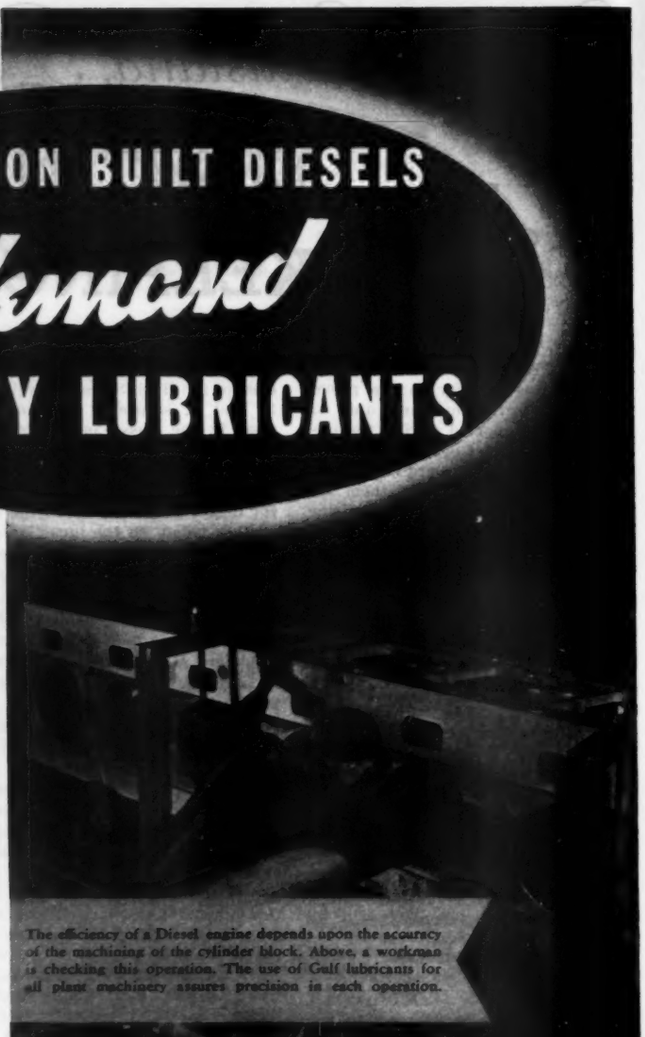
Phillips Petroleum Co. No. 1 J. D. Reynolds, section 27-15-15, a deep test on the flank of the Smackover area, reported a good core of sand with the hole bottomed at 4,916 feet. A drill stem test failed to develop results and testing will be continued. Ben G. Barnett is moving in rig on No. 1 Freeman Lumber Co. in section 36-15-14, Calhoun County. A new wildcat in Dallas County, Kel-Mac Lease & Royalty Co. No. 2 R. Owen, section 26-10-16, is rigged up and waiting orders to spud.

Lafayette County reports two deep tests nearing the pay stage and two others practically checked out at shallower depths. Erwin & Leach No. 3 Bodcaw Lumber Co., section 20-16-23, in the Stamps area, is setting a string of 7-inch casing at 5,000 feet. Joe Modisett No. 1 Red River Lumber Co., section 21-19-24, southeast of the old Bradley field, is drilling in red shale at 4,359 feet. Transportation Petroleum Co. No. 1 Cockran, section 26-19-25, stands temporarily abandoned at 3,675 feet as does Earl F. Fox No. 2 Coleman Brothers in section 30-16-24, a few miles southwest of the Erwin & Leach test. C. V. Lenz, veteran operator in the Miller County area, has spudded in No. 7 Dale, section 24-15-26, set 10-inch casing at 200 feet and drilling at 1,150 feet. It is reported that the test will be carried to around the 5,000-foot level if pay is not encountered around the pay horizon of the Miller County field which is approximately 2,930 feet.

H. L. Gentry and his crew of Michigan oil fire fighters, extinguished a blazing pump house in a Mount Pleasant, Mich., display last week in less than eight seconds using a new dry gas development. Mr. Gentry is head of the Utilities & Industrial Supply Company, Mount Pleasant, Mich.

The picture above shows the inspection of pistons and connecting rods after a new engine has been given a test run in the plant of a great Diesel builder. All pistons must set perfectly and ride without wear in their respective cylinders.

PRECISION BUILT DIESELS *demand* QUALITY LUBRICANTS



The efficiency of a Diesel engine depends upon the accuracy of the machining of the cylinder block. Above, a workman is checking this operation. The use of Gulf lubricants for all plant machinery assures precision in each operation.

Gulf supplies a complete line of HIGHEST QUALITY OILS FOR EVERY TYPE OF DIESEL ENGINE

IN the modern Diesel *engine builder's* plant, precision is vital to each mechanical operation. For, the Diesel builder's one aim is to supply the user with an efficient prime mover—an engine that will run continuously over a long period without appreciable wear or repair expense. That is why leading builders safeguard their costly plant equipment with Gulf quality lubricants and assure precision in each operation.

Of great significance also is the fact that 50 leading builders of Diesel engines in the United States have tested Gulf lubricants and placed their stamp of approval on them. Thus, the *operator* knows in advance that *Gulf supplies the right lubricant* for the particular make of Diesel engine installed in his plant.

Gulf Diesel lubricants have been treated and purified by the finest of the new selective solvent processes. They stand up over long periods of service and insure minimum bearing and cylinder wear.

If you are not using Gulf products, we suggest that you discuss the matter of lubrication with a Gulf representative who will recommend exactly the right type of lubricant for your equipment. This safety measure will assure you of lowest maintenance costs for your Diesels.

Above, a piston is ground for accurate measurement and smooth finish. This grinding wheel takes off only a small cut, and six hours or more are often required to correctly grind one piston.

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Michigan Field Report

BEST WEEK IN THE YEAR IN FIELDS; WILDCAT SHOWINGS

By
PAUL A. ELLIOTT

MUSKEGON, Mich., Mar. 30.—While Michigan operators breathlessly watched half a dozen wildcats scattered throughout the state, all showing possibilities of new fields, producers in leading oil and gas fields last week turned in the best completion record of the year, setting several new records.

More than 3,000 bbls. of new initial oil production was recorded in three Midland County pools and the Crystal Township, Montcalm County field. Pure Oil Co. set a Michigan record completing eight tests in Midland County, including four oil wells and four "dusters." One of the four producers was the largest since January 1, 1935. The four aggregated 2,000 bbls. daily initial. Three Crystal completions added another 1,000 bbls. a day.

The state's record gasser, a 36,000,000-foot well, and two other big ones, one good for 24,000,400 feet and the other for 32,000,000, added more than 92,000,000 feet of daily potential to the Millbrook-Hinton-Belvidere, or Tri-Townships gas field of Mecosta and Montcalm Counties. Already the state's largest field, it has an aggregate open flow capacity of nearly 900,000,000 feet a day.

Two new wildcat shows of oil were reported, one in Elba Township, Gratiot County, and the other in Grant Township, Huron County. Two previous wildcat shows were drowned out with water, one was still to be tested and a small wildcat discovery dormant for several months came back to production.

Midland Record

Of greatest immediate importance was Pure's record of four new producers in Midland County, where average daily production of the Porter-Yost pool, still the largest in the state, bolstered up the state total with a rise of 1,500 bbls. during the week ended March 21.

The "big" field climbed from 17,618 bbls. during the second week in March to 19,120 bbls. daily during the third week offsetting declines of 869 bbls. in Crystal from 9,486 to 8,617 bbls.; 491 bbls. downward in the Greendale-Chippewa Township, or original Mount Pleasant field, from 3,039 to 2,548 bbls., and 57 bbls. off in the Montcalm County, Home Township, field from 320 to 263 bbls. Ogemaw, Beaverton and the Vernon-Leaton pool showed lesser increases, accounting for a rise of nearly 700 bbls. in the state output from 34,385 to 35,072 bbls. a day. Other fields showed little or no change.

The largest of the four new Midland producers was Pure No. 2 Clark heirs, C S half SW NE section 2-13n-2w, Jasper Township. It made 1,356 bbls. in 24 hours, jumping from a natural initial of 230 bbls. a day after acid treatment in the Dundee at a total depth of 3,433 feet.

Acid treatment of Pure No. 1 Iva E. Bond, C N half NW NE section 12, also in Jasper, boosted its initial from 45 bbls. natural to 325 bbls. a day at 3,441 feet, also in the Dundee limestone.

Daily potential of the same company's No. 6-A Joseph Novak, SW SE SE section 7-12n-2w, Greendale Township, increased from 15 to 78 bbls. a day after acid at 3,583 feet.

The only one of five offset tests in Porter Township to produce was the No. 3 J. M. Hicks, NW SW SW section 14-13n-1w, increased from a natural flow of 40 to 160 bbls. a day by acid treatment.

The Hicks well, because of its location on the east edge of the Porter pool, is believed to indicate a possible extension in this direction, now being tested further by the Jetter Oil Co. No. 1 French, NE SW SE section 14. C. B. Jetter, head of the company, brought in the Vickeryville wildcat which last fall indicated a new pool about 7 miles southwest of the Crystal field. The French is drilling at more than 1,600 feet on a site three-fourths of a mile east of the Hicks.

Gratiot Oil & Gas Co. No. 1 Ruby Greene, SW NE NE section 13, Jasper Township, previously reported good for 25 bbls. a day on the pump, was tripled to 75 bbls. a day with acid.

Pure's four "dusters," all Porter Township offsets, included: No. 8 Floyd Younglove, SW SE SW section 17, dry at 3,411 feet; No. 3-B J. H. Miller, NW NE NE section 18, finished at 3,422 feet; No. 8-C Laura E. Root, SW NW NW, and No. 9-C, on the same lease, NW NE NW, both in section 20, the former at 3,405 feet and the latter at 3,505 feet deep.

Until recently when a number of independents have entered wildcat sections of Midland County, Pure Oil Co. has been responsible for most of the drilling activity in this area. By far a major share of production from the state's largest field is still maintained by Pure.

Crystal—Montcalm

Though the No. 1 fee, NE NE SW section 11-10n-5w, Crystal Township, Montcalm County, originally was estimated a 2,000-bbl. gusher, but later dropped to less than 500 bbls. a day, the Duck Lake Oil Co. started clearing the shore for a second test south of the No. 1. Swanson Oil Co. also started moving in for the No. 1 C. DeYoung, NE SE SE section 11, just off the south end of the small inland lake.

J. W. Leonard, Jr., and others also staked out a location for their No. 2 O. Brown, about 200 feet off shore and east of the Duck Lake well. The Brown is a west offset to Strange & Fortney's No. 1 Rockelman, the test which last fall revealed the possibilities of oil beneath the lake bed.

The first lake well has been flowing by heads through 6-inch casing, the operators hesitating to run tubing, thereby chancing forfeiture of a $10,000 cash bond required by the state in case the lake is polluted with oil or brine. Deepening also has been delayed for fear of water encroachment despite the disappointing daily flow.

Three tests in proved territory added 1,000 bbls. daily to the Crystal Township output last week.

Largest of the three was Gulf Refining Co. No. 4 Z. D. and Florence Rule, NE SE NW section 2, which made 366 bbls. a day natural. Dundee was topped at 3,178 feet and drilling suspended at 3,184 feet, 3 feet in the pay.

Daily Crude Oil Co. No. 9 W. Robbins, NE SW NE section 3, was rated at 250 bbls. natural but was tubed for treatment in the Dundee first encountered at 3,170 feet and drilled to 3,184 feet.

Gordon Oil Co. No. 8 William E Strait, NW NE NW section 3, flowed 300 bbls. a day under 400 pounds back pressure, though it came in at the rate of 625 bbls. after acid treatment. The drill penetrated the Dundee at 3,194 feet and stopped 10 feet in.

Two failures also were reported, Strange & Fortney's No. 2 Alva Rockelman (Lott), NE SW SE section 11, which failed to produce after acid treatment at 3,197 feet, and Pure No. 2 Ernest Stedman, NW NW SE same section, reported to have drilled into oil, gas and water simultaneously in the Dundee.

Gassers

Three better than average gassers were completed in the Tri-Townships field in Mecosta and Montcalm County, where an average of more than 23,000,000 feet of open flow per well has been maintained during the past two weeks, breaking all previous gas records in Michigan.

Largest of the three new wells also gauged higher than any other gasser in the state, although one or two have had estimated open flows in excess of 40,000,000 feet a day.

The record well was brought in by Ross & Bernier as their No. 1 Sutherland & Hockett, C NW NW section 4-12n-7w, Belvidere Township, Montcalm County. It flowed 20,000,000 feet in the first pay from 1,262 to 1,283 feet, increased to 29,000,000 feet in the second pay from 1,284 to 1,287 feet, but blew in for 36,000,000 feet a day when it took 15 men three hours to install a 6-inch master gate.

Michigan Exploration Co. No. 1 Richardson, which was deepened to the Dundee and plugged when it failed to strike oil production, gauged about 35,000,000 feet on the way through the Michigan Stray sands. The Stray was topped at 1,260 feet in the Hockett & Sutherland.

Wiser Oil Co. No. 1 T. W. Musson, C NW SW section 11, same township, made 24,400,000 cubic feet a day at 1,260 feet after drilling through 15 feet of pay in the Michigan Stray topped at 1,242 feet.

Charles H. Bell brought in the largest gasser in the Millbrook Township, Mecosta County, section of the field when his No. 2 L. C. Culey, C NE SW section 30-13n-7w, Millbrook Township, flowed 32,000,000 feet a day from a depth of 1,304 feet. Michigan Stray was topped at 1,281 feet.

About 375,000,000 feet of open flow has been added to the field total since early February by the completion of 16 wells ranging from 3,300,000 to 36,000,000 feet a day.

Crystal Outposts

Jetter Oil Co. was drilling slowly in the No. 1 Lawrence Pitcher, SE SE NW section 5, which had reached a depth of more than 3,000 feet. McClanahan Oil Co. was more than 2,400 feet deep in the No. 1 Moses R. Honderich, NW NW NW section 1, another outpost.

Seven Montcalm County wildcats, including two in Bloomer Township, 9n-5w, one in Bushnell, 9n-6w, three in Evergreen, 10n-6w, and one in Montcalm Township, 10n-8w.

Two other tests in Crystal Township, Gulf Refining No. 2 Harzey J. Fisher, SW NE NE section 2, and J. W. Leonard, Jr., trustee, No. 1 Norval Brown, NE SE SW section 11, nearing Dundee completion, both drilling at more than 2,800 feet.

Daily Crude Oil Co. No. 3 H. J. Hansen, SW NE NW section 10-12n-6w, in the Home Township, Montcalm County, upper Traverse field, also was casing preparatory to drilling in soon.

Wildcat Shows

Two new wildcat showings were encountered last week in Michigan, the first in Miller Brothers' No. 1 Mae Ryan, NW SE NE section 22-9n-1w, Elba Township, Gratiot County to be treated with acid in the Dundee at about 2,680 feet, and the other in Wallace Markle No. 1 Frank Opaka, NE NE SE section 4-15n-11E, Grant Township, Huron County, in the Dundee at 2,836 feet. Drilling was continued in the latter.

Two previous wildcat shows which aroused statewide interest the week before last were drowned out by water. Mountain Oil & Gas Co. No. 1 Archie Walter, SW NW NE section 17-11n-2w, Emerson Township, Gratiot County, was plugged and abandoned after a show at 3,250 feet.

King Drilling Co. No. 1 Kube, NE

NE NE section 31-12n-2e, Richland Township, Saginaw County, near Hemlock, which produced for some time from the Upper Traverse, indicating possibilities of a new pool, failed in the Dundee after being deepened to 3,268 feet, 41 feet in the lower limestone.

Hope for commercial production in Richland Township had not yet been abandoned, however, because Henry L. McEvoy No. 1 Jenacki, half a mile southwest of the Kube, SE SE NW section 31, showed a barrel a day at 3,187 feet in the top of the Dundee. The showing failed to increase, however, though the hole had been drilled to 3,242 feet.

Operators were preparing to treat for a show of 100 feet of oil in the Northern Development Co. No. 1 Fred Burke and others, SW SE NW section 26-17n-15w, Logan Township, Mason County, a west Michigan wildcat.

Two other Logan Township tests were preparing to deepen to the Sylvania after shows in the Traverse and Dundee failed to develop into commercial production. The Burke show was encountered at 1,920 feet in the Upper Traverse pay.

Production was resumed in M. C. Fordyce No. 1 Mike Suszko, SE SE NE section 11-18n-3e, the discovery Upper Traverse well in a prospective new field opened last December in Gibson Township, Bay County, 35 miles northeast of the Porter field. A new test also was spudded in on an offset location, arousing new interest in the area after the winter shutdown.

Beaverton—Gladwin

Smith Petroleum Co. No. 2 Mae E. Fruchey, section 2-17n-2w, in which a flow of 250 bbls. initial from the Dundee was drowned out with water by deepening, is being cemented back in an attempted recovery.

Two other tests were nearing Dundee completion in the area, including Great Lakes Oil Co. No. 1 Campbell, SE SE NE section 3, Beaverton key to a possible northerly extension, and M. F. Whitehill's No. 2 William Bell, NE NE NW section 11, same township, in the proved area.

Six other Gladwin County tests are under way, including four in Beaverton and two in Grout Township.

Isabella County

Three completions were recorded in Isabella County, one producer in Denver, another in Vernon and a dry hole in a Wise Township wildcat. They were the first Isabella completions of the year.

Lawson Oil & Gas Corp. No. 3-A Arlinda & Arvilla Thayer, NW NE SW section 23-16n-4w, Vernon Township, flowed about 100 bbls. a day natural from the Dundee topped at 3,733 feet and drilled to 3,744 feet. It was the first producer completed in the Vernon pool in six months.

T. T. Hawksworth No. 1 State, SE NW SW section 34-15n-3w, Denver Township, made 60 bbls. initial but settled down to 45 bbls. at 3,621 feet. Dundee limestone was topped at 3,546 feet.

Acid treatment increased the daily production of E. Schelling No. 1 Rose Mitchell, NW SW SE, same section, to 50 bbls. initial and about 30 bbls. settled output.

Leaton Oil & Gas Co., of Flint, has acquired the No. 1 Anton Wezensky, SE NW SE section 30, Denver Township, and will attempt production of the shutdown project inactive for about 18 months.

McClanahan Oil Co. and Burks White will plug and abandon their No. 1 Lawrence Hafner, C SE NW section 22-16n-3w, the Wise Township, Isabella County wildcat, which struck a hole full of water in the Dundee at 3,773 feet.

George Hanners and others No. 1 J. Dargitz, SW SW SE section 20-13n-6w, Rolland Township, was shut down after drilling into Marshall water. Pure Oil Co. is starting a deep test on the Chris Comstock lease, section 15, same township. Pure also is deepening a former gas test in the Broomfield Township gas field to the Dundee in search of oil.

Ogemaw County

Morris-Barnes Oil & Gas Syndicate No. 4 Golf Course well, SW NE SW section 20-22n-2e, West Branch Township, was completed for 90 bbls. a day after a shot of nitro last week. Dundee was encountered at 2,549 feet and the hole bottomed at 2,723 feet.

Weber Oil Co. No. 3 Boeing Estate, SW SW SE section 36, same township, swabbed 20 bbls. natural and was tubed to pump at a total depth of 2,634 feet. Dundee was topped at 2,468 feet.

The Weber company has taken out permits for half a dozen additional tests to be drilled in proved sections in Ogemaw County during coming months.

New Permits

A record of nearly twice as many new permits to drill as last year to date had been set through the department of conservation with a total of 157 locations from January 1 to March 25, 1936.

Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, Mar. 28.—In the North Turner Valley field, Royalite Oil Co. No. 27, LSD 4, section 23-20-3w5, is testing production from the Madison limestone at 5,570 feet. At this depth it is 385 feet in the lime and initial shows indicate a fair producer. It may be deepened, shot or given acid treatment to increase production. Location was south of Royalite No. 26 which is the largest producer in the Turner Valley field.

South Turner Valley

In section 28-18-2w5, South Turner Valley, British Dominion Oil & Development Corp. No. 4, LSD 6, is taking production of better than 100 bbls. a day while waiting for a new drilling line. It will later be deepened for a thorough test of the black lime horizon.

Farther south, Renfrew Royalties' No. 1, Morris & Goodfellow, LSD 3, same section, is cleaning out preparatory to drilling into the lime from 6,020 feet. In the northwest corner of the same section, Turner Valley Royalties' No. 1, LSD 13, is in the Blairmore formation below 4,865 feet.

In section 21-18-2w5, Union-Freehold Oil Corp. No. 1, LSD 8, is taking a small naphtha recovery from the lime at 6,260 feet. It is about 660 feet in the lime, and will likely be acidized or shot to increase production. In the southeast corner of the same section, Highwood-Sarcee Oils No. 2, LSD 1, is below 2,820 feet. Farther west, Highwood Royalties No. 1, LSD 3, is preparing to resume from 2,460 feet.

Test Southern Extension

A further potential southern extension of the Turner Valley field will be tested by Century Royalties, Ltd., of Calgary, which has tentatively located its No. 2 test in LSD 15, section 16-18-2w5, half a mile southwest of Union-Freehold No. 1, the southernmost producer, and offsets Highwood-Sarcee Oils No. 2, the most southerly drilling well, to the southwest.

Anglesey Deep Test

In the De Winton district, south of Calgary, Marquis of Angelsey No. 1 Lakeview, LSD 1, section 22-21-1w5, has been taken over by Wales Petroleum Co. and a deep test made. The charter of Wales Petroleum, Ltd., incorporated in 1929, has been acquired by interests headed by W. A. Preston, who holds a majority interest in the company. The company holds several thousand acres on the De Winton structure.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren, LSD 12, section 13-31-10w5, is preparing to resume from 5,422 feet after cementing 8-inch casing. Strong gas pressure was met at 5,355 feet.

On the Highwood-Sinclair structure, south of Turner Valley, Maple Leaf Royalties No. 1 Banner, LSD is preparing to run casing to 2,597 feet before deepening.

On the Watson structure, north and west of Lundbreck, Mar Jon Oil Co. No. 3, LSD 3, section 4-10-2w5, is below 4,100 feet.

On the Mill Creek structure in the Pincher Creek area, Weymarn Petroleums No. 2, LSD 5, section 7-6-1w5, is resuming from 5,665 feet after running a string of 6-inch casing to 2,560 feet.

In the Jumping Pound area west of Calgary, Imperial Oil No. 3 Bow River, LSD 6, section 31-24-4w5, is hauling equipment. Location is immediately south of Imperial No. 2 Bow River, drilled some years ago to 3,524 feet, and No. 3 will test potential oil horizons encountered in the deep well at 705 and 1,068 feet in the Blairmore formation.

High River-Aldersyde

East and north of Turner Valley, Ranchmen's Gas & Oil Co. No. 1, LSD 16, section 13-20-29w4, is deepening below 6,693 feet with a slight increase in oil and gas showings.

Del Bonita Test

On the Del Bonita structure south of Lethbridge, Terminal Oil Co. No. 1, H. Orcutt location, NE section 18-1-21w4, is preparing to test production in the Sunburst sand, where fair oil and gas shows were encountered in drilling to the Madison limestone. The hole bottoms in the Madison at 5,098 feet.

Vermilion Gas Tests

In the Vermilion area, northeast of the Viking and Kinsella fields, Tenwell Gas & Oil Co. No. 1, LSD 9, section 36-50-7w4, is setting 8¼-inch casing with hole bottomed at 1,800 feet. There is some gas and a production test will be made before deepening.

Wainwright Field

In the Wainwright field, east central Alberta, Montreal-Alberta Oil Co. No. 1, LSD 2, section 15-45-7w4, is arranging to deepen in the Paleozoic lime from 2,885 feet. It has been standing for several years after getting oil shows in the Cretaceous between 2,294 and 2,321 feet, entering the lime at the latter depth. It is planned to make a thorough test of the lime. Bethwain Oils No. 2, LSD 16, section 4-45-6w4, is rigging up to clean out and restore production in the Wainwright sand.

Ontario Drilling

In the Eden field, Elgin County, Ontario, Olga Gas No. 2, Claude A. Wilson farm, Lot 24, Concession 8, Bayham Township, finished in the sweet gas sand below 1,320 feet with initial flow around 340,000 feet a day. Olga No. 3 will be started, probably on the same lease. E. P. Rowe No. 4, Ball farm, Lot 26, Concession 8, is below 400 feet.

In the Brownsville field, Dereham Township, Oxford County, W. J. Hussey has two tests rigged. Hussey No. 1 is north of Aloka Oil & Gas Co. No. 1 on the Armand Smith farm, and No. 2 is east of Oloka No. 1. Aloka Oil & Gas Co. No. 3 is rigged. The two earlier Aloka wells on the Armand Smith lease had a fair sulfur gas production in an horizon around 900 feet.

In Chatham Township, Kent County, Union Gas Co. No. 3, SW Lot 6, Concession 14, is below 1,100 feet and running casing.

In Dawn Township, Lambton County, G. F. Gregory & Son No. 2, Lot 22, Concession 2, is below 1,470 feet. Gregory No. 3, Lot 22, Concession 3, is below 670 feet.

Old Well Comes Back

An old well in the Petrolia field, Lambton County, on the F. W. Howlett & Son oil property has been brought back into production after being off the pump for nearly 38 years. Recently it was cleaned out, and started pumping 1 bbl. an hour,

(Continued on Page 69)

Kansas Developments

By
DAL DALRYMPLE

BREAK PRODUCTION RECORD AS NEW POOLS GET OUTLETS

Oil field activity in Kansas continues at the fast pace set by operators with the passing of severely cold weather, numerous new tests having been started, a large number of wells completed and daily average production soaring to a new high record for the state during the past week.

Estimated daily average production for all Kansas fields for the week was 159,625 bbls. The previous peak production for the state was 154,900 bbls. daily, the average for the week ending March 26, 1935. Much of the increase was due to the fact that the Kaw Pipe Line Co., which recently extended its lines into the western Kansas areas, was making up some of its back runs. The Stanolind, Skelly and Sinclair Prairie pipe lines also were reported to have run more oil than the normal allowables for the week.

Several interesting tests were started or projected, and large producers and wildcat discovery wells were completed. Among the interesting wildcat discoveries was the Shawver & Wilt No. 1 Bahruth, SW NW NE section 8-34-3, in Cowley County, northwest of Arkansas City, and 2 miles northeast of Geuda Springs. It was completed at 3,305 feet, total depth, in Bartlesville sand topped at 3,243 feet. It started off flowing by heads at the rate of 150 bbls. daily, and was completed as a 125-bbl. producer. It not only opens a new pool but increases interest in the search for Bartlesville and Burbank sand production in that district.

Burrton Extended

The southwest extension of the Burrton pool of Reno County, gradually being pushed further in the direction of the new Yoder area, was given two new producers. Derby Oil Co. No. 1 Seedle, NE NE SW section 17-24-4w, topped Chat at 3,306 feet, drilled to 3,395 feet, and flowed at the rate of 60 to 62 bbls. of oil an hour. Same operator's No. 8 Seedle, SE SE SW section 17-24-4w, encountered Chat at 3,296 feet and started flowing at 3,350 feet, total depth, producing about 80 bbls. of oil an hour. Recently Derby Oil Co. and McPherson Drilling Co. completed No. 1 Scheuchzer, one location south of No. 8 Seedle, which made potential of 649 bbls., flowing through tubing.

Another proven area of special interest at the moment is the Raymond pool of Rice County, where Skelly Oil Co. is about to complete its third producer, the No. 3 Graham, C E half SE section 16-20-10w. At total depth of 3,350½ feet, the well was acidized, produced 2,069 bbls. of oil in 19 hours and 45 minutes of potential test before a breakdown in equipment prevented completion of the test. A new potential test was to be made when repairs were completed. The company has staked location for No. 4 Graham, SE NE SE section 16-20-10w. Both of the two initial producers on the Graham lease made potentials exceeding 2,500 bbls.

Among wildcats starting was an interesting test in Ellis County, rapidly becoming one of the more active counties in the state. Simar Oil Co. and Harris & Haun were moving in materials and digging ponds for No. 1 John Schmeidler, SE SE SW section 3-13-17w. Location is 6 miles north of the Twin Drilling Co. No. 1 Goetz discovery well near Victoria, and is on a 2,500-acre block. In McPherson County, Empire Oil & Refining Co. was preparing to start work at No. 1 Cunningham, SE cor. section 26-18-1w. Location is 1 mile west of the McPherson-Marion County line, in virgin territory 5 miles north and 2 miles east of Canton, on a big structure. Two miles south of the Empire location, Fred C. Frank of Abilene, Kans., has staked location for No. 1 Dole, wildcat in section 12-19-1w.

Rice County

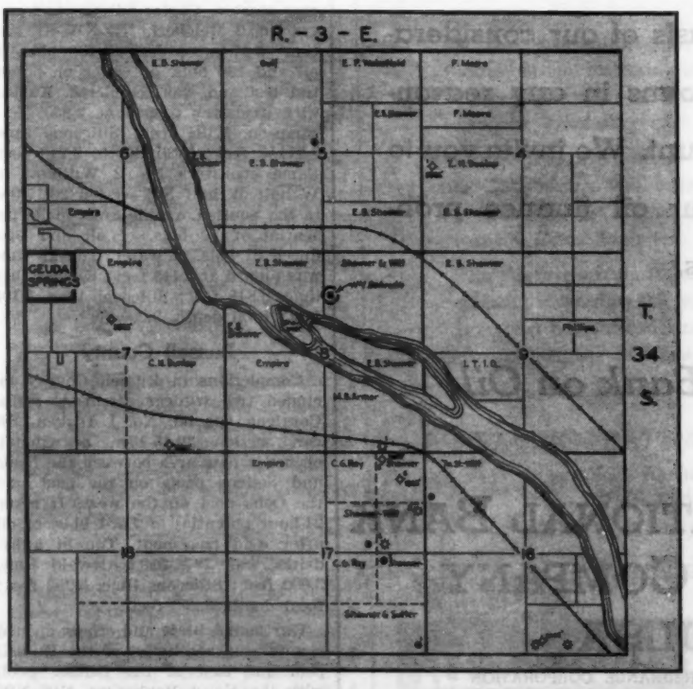
The largest producer of five Rice County completions was in the Raymond area. It was the Skelly Oil Co. No. 2 Graham, NW SE SE section 1-20-10w. It made 24-hour potential of 2,531 bbls. of oil after acidizing. Siliceous lime was topped at 3,362 feet; total depth, 3,368 feet.

In the Silica area, Gulf Oil Corp. No. 3 Stoltz, NE SE NW section 32-19-10w, topped Siliceous lime at 3,287 feet; total depth, 3,308 feet. It made 24-hour potential of 1,748 bbls. of oil. Hutchinson Oil Co. No. 2 Wendell, NE SW NE section 32-19-10w, was acidized with 1,000 gallons and made potential of 1,400 bbls. of oil. It was acidized a second time with 10,000 gallons, and made potential of 1,485 bbls. of oil. Top of Siliceous lime was 3,300 feet; pay, 3,325-29 feet; total depth, 3,330 feet.

Empire Oil & Refining Co. No. 3 Guldner, SE SW SW section 9-18-9w, made potential of 964 bbls. of oil, cutting 2 per cent water, and was completed. It topped Siliceous lime at 3,231 feet and had pay at 3,237-39 feet, total depth. Shell Petroleum Corp. and others No. 9 Ploog C-16, NE NW SE section 33-18-9w, in the Ploog pool, topped Siliceous lime at 3,236 feet; total depth 3,243 feet. It swabbed 340 bbls. of oil and 10 bbls. of water in 20 hours, was acidized and made a potential of 462 bbls. of oil.

New field work in Rice County follows: Continental Oil Co. and Southland Oil Co. No. 1 Roche, SE NW SW section 4-18-7w, location; Empire Oil & Refining Co. No. 2 Janssen, SE NE NW section 3-18-8w, building rig; Simpson & Noble and others No. 1 Pulliam, C S half N half NE section 35-19-8w, wildcat, location; Bradley Oil Co. No. 5 Wendell, NW NE NE section 32-19-10w, rigging up rotary; Empire Oil & Refining Co. No. 2 Burns, NW SW SW section 15-20-10w, location; Skelly Oil Co. No. 4 Graham, SE NE SE section 16-20-10w, cellar; Sinclair Prairie Oil Co. No. 4 Graham, NE SW SE section 16-20-10w, ponds; Slick, Pryor & Lockhart No. 4 Mezger, NE cor. section 21-20-10w, ponds; Sinclair Prairie Oil Co. No. 1 Kelly, NW cor. section 22-20-10w, cellar; Skiles and others No. 1 Stout, SE cor. section 6-21-9w, wildcat south of Chase pool, ponds.

Empire Oil & Refining Co. No. 1 Janssen, NE NE NW section 3-18-8w, pumped 558 bbls. of oil in 24 hours and was drilling ahead below 3,278 feet. It topped Kansas City lime at 2,850 feet; Siliceous lime at 3,251 feet.



A new Bartlesville sand pool has been opened in Cowley County, Kansas, by Shawver & Wilt at No. 1 Bahruth, wildcat located in SW NW NE section 8-34-3

(Mid-Continent Map Co., Wichita, Kans.)

Estimated Production

Estimated daily average production in Kansas for the week ending March 28 and for the preceding week is as follows:

	Barrels	
	Mar. 28	Mar. 21
Oxford City	7,125	7,300
Burrton	14,575	14,850
Ritz-Canton	8,925	7,525
Hollow-Nikkel	4,475	4,475
Voshell	3,475	3,925
Ellsworth County:		
Lorraine-So. Lorraine	9,509	8,709
Other pools	1,791	1,447
Rice-Barton Counties:		
Chase	11,167	10,787
Raymond	3,244	3,140
Silica	7,865	6,812
Keesling	1,611	1,943
Miscellaneous Rice	3,657	2,882
Miscellaneous Barton	1,903	1,806
Russell County:		
Fairport	4,236	3,795
Gorham	4,742	4,312
Russell	4,996	2,746
Other pools	9,226	7,611
Sedgwick County:		
Valley Center	1,385	1,369
Greenwich	1,333	1,357
Robbins	1,920	1,783
Eastborough	912	896
Other pools	539	645
Ellis County	1,088	554
Kingman County	277	557
Stafford County	2,106	2,900
Greenwood County	9,300	9,400
Butler County	18,403	18,300
Other fields	20,635	19,653
Total Kansas	159,625	150,975

New Pool in Sight

A new pool was being opened between the Geneseo townsite and Geneseo areas. Continental Oil Co. and Empire Oil & Refining Co. No. 1 Nickel, NE SW SW section 13-18-8w, wildcat, pumped 883 bbls. of oil in 24 hours after acidizing. It topped Siliceous lime at 3,210 feet; total depth, 3,214 feet.

Gulf Oil Corp. No. 8 F. E. Steckel, SW NW NW section 31-19-10w, topped Siliceous lime at 3,277 feet; total depth, 3,296 feet; and pumped 466 bbls. of oil in 11 hours, cutting 7 per cent. Stanolind Oil & Gas Co. No. 4 Mitchell, NW NE SW section 32-19-10w, swabbed at the rate of 28 bbls. of oil an hour after topping Siliceous lime at 3,314 feet and drilling to 3,331 feet. Stanolind Oil & Gas Co.

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No. 3 Specht, SE NW NE section 6-20-10w, swabbed 75 bbls. of oil in four hours after drilling to 3,311 feet and acidizing. Siliceous lime was topped at 3,295 feet. Skelly Oil Co. No. 3 Graham, NE SE SE section 16-20-10w, pumped 2,069 bbls. of oil in 24 hours, down four hours. Top of Siliceous lime was 3,355 feet; total depth, 3,358 feet.

Barton County

Both of the Barton County completions were in the Silica area. Continental Oil Co. No. 4 Risse, SW SE SE section 36-19-11w, topped Siliceous lime at 3,278 feet and at total depth of 3,290 feet it swabbed at the rate of 40 bbls. per hour. After acidizing it made potential of 1,585 bbls. of oil. Magnolia Petroleum Co. No. 5 Steckel, NE NW NE section 1-20-11w, swabbed 400 bbls. of oil in eight hours and made 24-hour potential of 1,062 bbls. It had Siliceous lime at 3,277 feet, corrected measurement; total depth, 3,290 feet.

New work in Barton County: E. H. Moore and Mabee Drilling Co. No. 1 Feist, NW SW SE section 29-18-11w, building rig; Continental Oil Co. No. S Risse, C W half NE SE section 36-19-11w, cellar; same operator's No. 9 Risse, C E half NW SE section 36-19-11w, cellar; Gulf Oil Corp. No. 6 F. J. Wendel, C W half SE NE section 36-19-11w, building rig; Magnolia Petroleum Co. No. 7 F. Steckel, SW NW NE section 1-20-11w, moving in material; same operator's No. 3 Meda Steckel, SE NE NW section 1-20-11w, cellar.

Continental Oil Co. No. 3 Risse, C E half NE SE section 36-19-11w, was swabbing at the rate of 57 bbls. of oil per hour from Siliceous lime at 3,264-67 feet, total depth. Magnolia Petroleum Co. No. 3 Steckel, SE NW NE section 1-20-11w, old well deepened from 3,291 feet, pumped 330 bbls. of oil in 18 hours after drilling to 3,307 feet.

Ellsworth County

Two wells in Ellsworth County were completed, but no new work was started. Carter Oil Co. and others No. 2 Melchert, NE NW SE section 23-17-9w, produced 133 bbls. of oil and 130 bbls. of water on potential test and was completed. Kansas City lime was topped at 2,860 feet; Simpson, 3,194 feet; Siliceous lime, 3,211½ feet; total depth, 3,213 feet. Same operators No. 2 Williams, C W half W half NE section 26-17-9w, in the South Lorraine area, made potential of 70 bbls. of oil and produced 31 bbls. of water. Topeka lime was topped at 2,445 feet; Kansas City lime, 2,848 feet; Siliceous lime, 3,195 feet; total depth, 3,200 feet.

Russell County

Completions in Russell County included two wildcat discovery wells. Coralena Oil Co. No. 1 Disken, SE cor. section 30-15-13w, a wildcat, opened a new area between the Rude and Sellens pools on the east and the Ochs pool on the west. It made 24-hour potential of 1,231 bbls. of oil after acid treatment. Top of anhydrites was 797 feet; Oswald lime, 3,000 feet; Siliceous lime, 3,252 feet; total depth, 3,253 feet.

Hartman & Blair and others opened a new area southwest of the Russell pool and east of the Dillner pool, with the No. 1 Boxberger, NW NW SW section 32-13-14w. It was acidized with 5,000 gallons and made potential of 545 bbls. of oil. Anhydrites was topped at 904 feet; Topeka lime, 2,760 feet; Oswald, 3,039 feet; total depth, 3,220 feet. Production was from Oswald lime.

Signal Oil Co. No. 2 Berry, NE SE NE section 33-15-13w, in the Sellens area, was acidized, made potential of 369 bbls. of oil and was completed. Oswald lime was topped at 3,070 feet; Siliceous lime, 3,335 feet; total depth, 3,339 feet. Tom Palmer No. 3 Woelk, SE SW NW section 22-13-14w, in the Russell pool, had Siliceous lime at 3,275-79 feet, total depth, made 24-hour potential of 1,009 bbls. of oil and was completed. Texas Co. No. 3 Anschutz, SW NW SW section 1-14-15w, topped anhydrites at 905 feet; Oswald lime, 3,050 feet; pay 3,090-99 feet, total depth. It swabbed 60 bbls. of oil in 11 hours, then made potential of 319 bbls. of oil and was completed.

New Russell County work: Central Petroleum Co. No. 1 Furthmeyer, NE cor. section 28-14-15w, wildcat south of Gorham area, moving in material; Texas Co. No. 4 Johnson, SW NE NE section 2-14-15w, building rig; Southern Oil Co. No. 2 Rosa Berry, NW SW NW section 34-15-13w, building rig.

Lario Oil & Gas Co. and Texas Co. No. 3 Boxberger, C E half NW NW section 24-14-15w, pumped 120 bbls. of oil in three hours after acidizing. Top of anhydrites was 850 feet; Oswald lime, 3,012 feet; pay at 3,014-18 feet, total depth. Gulf Oil Corp. No. 1 Hall, SW NW SE section 36-14-15w, was acidized and pumped 256 bbls. of oil in 15 hours, cutting 10 per cent basic sediment. It topped anhydrites at 805 feet; Oswald lime, 2,980 feet; total depth, 3,003 feet. Southern Oil Co. No. 1 Berrick, NW NE NE section 6-15-13w, flowed 60 bbls. of oil per day and produced an estimated 3,000,000 feet of gas from 2,926 feet, total depth.

Coffey County

Franklin Drilling Co. No. 3 Rossillion C E half SE SE section 1-23-14, was the only completion in Coffey County. Mississippi lime was topped at 1,510 feet; total depth, 1,541 feet. After acidizing, it pumped at the rate of 60 bbls. of oil a day.

The only new test in the county was the Franklin Drilling Co. No. 4 Rossillion, SW SE SE section 1-23-14, which had spudded.

Woodson County

A Woodson County wildcat failed to find oil pay and was dry and abandoned. It was the J. F. Mergen and others No. 1 Vermont Savings Bank, NE NW NE section 15-25-14. Mississippi lime was topped at 1,564 feet; total depth, 1,693 feet.

Conley & Cooper No. 7 Estes, C W half NE NW section 7-24-14, reported for the first time, was estimated good for 5 bbls. of oil a day at total depth of 1,736 feet. Top of lime was 1,690 feet; best pay, 1,723-33 feet. C. L. Sheedy and others were rigging up machine for No. 1 H. W. Tipton, NE cor. section 29-25-14.

C. L. Sheedy and others No. 1 Tipton, NW cor. section 28-25-14, had sand at 1,390-1,436 feet; and Mississippi lime at 1,499-1,510 feet, total depth. It was shot with 160 quarts, flowed 240 bbls. of oil in 24 hours and was completed.

Reno County

Another good producer in the Hilger area of southeastern Reno County has been completed by Magnolia Petroleum Co. at No. 1 Clyde Harris, NE NW SW section 9-26-4w. It pro-

duced 1,355 bbls. of oil on 24-hour potential test. Top of Chat was 3,599 feet; base of Mississippi was 3,947 feet; top of Misener sand, 4,007 feet; Viola lime, 4,045 feet; total depth, 4,057 feet. In the Burrton area, Gulf Oil Corp. No. 6 Myers, SE SE NW section 3-24-4w, topped Chat at 3,267 feet and was bottomed at 3,360 feet. After acidizing, it flowed 435 bbls. of oil and 71 bbls. of water, produced 6,000,000 feet of gas and was completed.

New work in Reno County follows: McPherson Drilling Co. and others No. 1 Mount, NW NW NE section 20-24-4w, building rig; C. M. Murray and D. J. Wallace, NE SE NW section 20-24-4w, location; Texas Co. No. 2 Collins, NE NE SE section 17-24-4w, old well deepened from 3,380 feet to 3,391 feet, with production estimated at 25 bbls. of oil per hour, with a showing of water.

Marathon Oil Co. No. 1 Mueller, SW SW NE section 30-24-4w, was acidized with 2,000 gallons and was waiting. Before acidizing it swabbed 64 bbls. of oil and 15 bbls. of water in six hours. Total depth is 3,403 feet.

Sumner County

No Sumner County wells were completed, but three new tests were started. Sinclair Prairie Oil Co. No. 8 Kamis, SE NE SW section 28-31-1w, was moving in material; Carlock, Rosenthal and others No. 3 Wenrich, NW NW SW section 23-32-2, was a cellar, and T. M. Deal Oil & Gas Co. No. 2 Peter, NW NW SE section 23-32-2, set 12-inch casing at 118 feet and was waiting.

E. B. Shawver No. 2 Barlow, SE SW NE section 33-31-1w, topped Chat at 3,647 feet and flowed 50 bbls. of oil in four hours. It was drilling below 3,665 feet.

Ellis County

No wells were completed in Ellis County, but work was started at a new wildcat location. Tom Palmer No. 1 Schoenthaler, NE NE NW section 31-12-19w, northwest of the Yocemento area, was building rig.

Rooks County

Work was starting at a new wildcat test in the southwestern corner of Rooks County. Lester & Dean were rigging up at their No. 1 Burtt, SE SE NE section 29-10-20w.

Stafford County

L. A. Farris and others No. 1 Snyder, SE SE NW section 3-21-11w, wildcat pool opener in northeastern Stafford County, flowed 226 bbls. of 36.2 gravity oil and produced 5,000,000 feet of gas in 24 hours. Total depth was 3,111 feet.

Greenwood County

Marylyn Oil Co. No. 4 Wilkinson, NE SE NW NW section 7-25-9, Greenwood County, had a hole full of water at 2,199 feet, total depth, and was dry and abandoned. Sand was topped at 2,190 feet.

Henderson & Holden No. 1-A Hess, C SW NE section 34-22-11, reported for the first time, was dry and abandoned at 2,188 feet, total depth, with a hole full of water. Sand was encountered from 2,168 to 2,184 feet.

Butler County

El Dorado Refining Co. No. 2 Huston, NW SE NW section 1-25-3, in Butler County, made potential of 252 bbls. of oil after acidizing and was completed. Top of Mississippi lime was 2,688 feet; total depth, 2,700 feet. Pryor & Lockhart and others No. 2 Gunther, NW SE NW section 29-26-7, topped Mississippi lime at 2,752 feet, and had best pay at 2,788-96 feet, total depth. It was acidized, pumped 40 bbls. of oil in 24 hours and was completed.

Two tests were started in Butler County. El Dorado Refining Co. No. 2 McCraner, NE SW NW section 1-25-3, was rigging up machine; Vickers Petroleum Co. No. 2 McCraner "C," SW NE NW section 1-25-3, was building rig.

McPherson County

Sunray Oil Co. and others No. 3 Anderson, SW cor. section 29-18-2w, in McPherson County, made potential of 85 bbls. of oil in 24 hours and was completed. Kansas City lime was topped at 2,303 feet; total depth 2,325 feet. McPherson Oil & Gas Co. No. 5 Chindberg, NW cor. section 32-18-2w, topped Kansas City lime at 2,300 feet and was bottomed at 2,335 feet. It was acidized with 3,000 gallons, made potential of 84 bbls. of oil and was completed.

New work in McPherson County was as follows: Empire Oil & Refining Co. No. 1 Cunningham, SE cor. section 26-18-1w, wildcat northeast of Ritz-Canton pool, moving in material; Sunray Oil Co. and others No. 4 Anderson, NW SW SW section 29-18-2w, ponds.

Canadian Fields

(Continued from Page 66)

later settling to about 2 bbls. a day, which is somewhat larger than the average producer in the Petrolia field.

In the Haldimand field, Domestic Natural Gas Co. of Toronto has finished No. 21 as a fair gasser, and is planning to drill a series of 15 additional tests in the same area. It will also drill 10 shallow wells in the Bothwell field, where it has 22 pumpers whose production is taken by Imperial Oil, Ltd.

Ajax Oil and Gas Operations

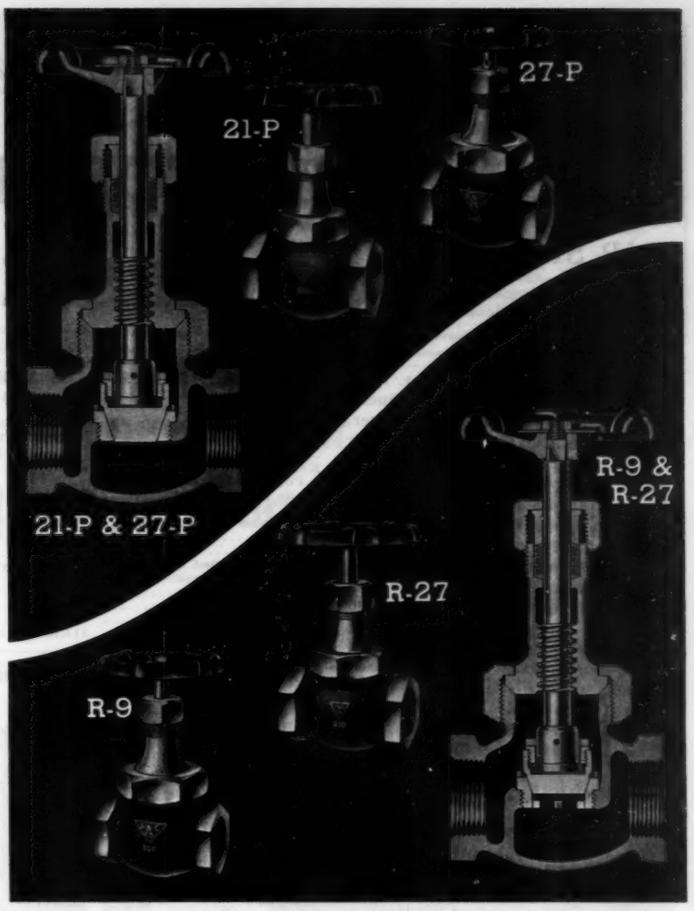
Ajax Oil & Gas Co. of Toronto showed for 1935 a profit of $104,886 before providing for reserves and other charges. The company has seven producing gassers in the Dover field, Kent County, its gas deliveries last year being about double those of 1934. On the Six Nations Indian Reserve in Brant County four gassers were abandoned and 38 are still producing, the output marketed to the Dominion Natural Gas Co. in 1935 showing about 30 per cent increase over 1934. The company is interested in the Lindsay and Eckroat leases in the Oklahoma City field where efforts are still being made to restore production.

British-American Operations

Widely circulated reports that the British-American Oil Co. of Toronto was planning to drill a test to 10,000 feet depth in Alberta have been officially denied by A. L. Ellsworth, president.

Alberta Oil Tax

EDMONTON, Alberta, Mar. 28.—A new fuel oil tax act, introduced in the Alberta legislature by E. C. Manning, provides a uniform tax of 7 cents a gallon on every kind of product. Previous legislation exempted specified fuel oils. Under the new measure fuel oil will include every liquid capable of being used for generation of power in an internal combustion engine.



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California Field Report

CALIFORNIA OIL EXPLORATION COVERS HUNDREDS OF MILES

By L. P. STOCKMAN

LOS ANGELES, Calif., Mar. 30.—California producers and refiners, recognizing the necessity of discovering new prolific oil fields in order to provide sufficient crude oil in order to meet refinery requirements in the not far distant future, are engaging in extensive exploration work in wildcat areas and stepping up the rate of development in existing productive fields. Every major company in the state has increased the scope of wildcat exploration and, in addition to development work, employing one or more parties engaged in geophysical surveys. Exploration work at the present time extends all the way from Riverside and San Bernardino Counties in the south to Humboldt, Sutter and Tehama Counties in the north.

New Wildcats

The Western Gulf Oil Co. has a rig up in the Cantua district of Fresno County and spud is expected to be made soon. This wildcat is located on land leased from the Southern Pacific Land Co. and is 990 feet north and 660 feet east of the SE cor. section 3-17-15. The Western Gulf originally controlled approximately 100,000 acres in the Cantua district but has quitclaimed a substantial portion of its holdings.

The Bankline Oil Co. and the Bolsa Chica Oil Co. have consumated an operating agreement whereby the former will take over the latter's tideland project at Coal Oil Point in Santa Barbara County and proceed to test out this structure, located approximately 2 miles east of the Elwood field of Santa Barbara County. The Bankline Oil Co. has plugged back the Bolsa Chica's test, which was carried down to 5,500 feet before drilling operations were suspended, and will redrill from the bottom of surface casing landed at approximately 1,000 feet. It is the intention to carry this well out farther from the shore by the use of directional drilling. The Coal Oil Point structure was one of the first mapped in California by the use of submarine geology. The dips were recorded by an experienced diver and a sealed Brunton compass. The growth and accumulation of seaweed and kelp is very regular and the contours outlined by this kelp are quite similar to production contours in a producing field. This apparent indication of structure might just be a coincidence, but this must be definitely disproved before certain geologists will accept this theory. There is no unanimity of opinion among geologists and engineers regarding the closure of the Coal Oil Point structure, although all tangible evidence indicates a lack of closure in the eastern end of the structure.

Monterey County

The Shell Oil Co. is deepening No. 1 Branch, a wildcat in Monterey County, located in section 34-24-10. Seven-inch casing was landed at 7,250 feet. The Union Oil Co. is working on an interesting wildcat, No. 1 Giannini, in section 28-22-20, the Tulare Lake district of Kings County. Several zones penetrated appeared capable of producing dry gas in commercial quantities. A formation test with the bottom of the hole at 3,992 feet and the packer set at 3,939 feet showed a good flow of gas for 30 minutes through a one-half inch bean. In addition to the gas flow, the company recovered approximately 3,000 feet of fluid consisting of mud, water and gas.

In Tehama County, the Northern Counties Petroleum Co. has heaving shale in No. 1 Ewers-Mooney, a wildcat located in section 24-23-23. This test, which recently passed the 7,000-foot level, has logged several promising gas showings but has not yet found any exceptionally favorable indications of oil. The sand member expected to contain oil is located at the base of the shale body through which the company has been drilling for several months. Adequate finances have been provided, some through dry hole contributions, and this well, which may change the opinion of some geologists regarding oil possibilities in the northern part of the state, should furnish an excellent cross section of the geologic column in this section of the state.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	March 15		March 8			
Intercoastal-domestic:	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Diesel and gas oil	74,150	10,593	.....	.....	151,541	527,998
Gasoline	77,351	11,050	311,205	44,458	1,219,973	1,313,077
Kerosene	.....	.....	.....	.....	385,956	326,246
Foreign exports:						
Crude oil	173,938	24,705	203,574	29,082	1,809,798	1,942,312
Fuel oil	73,536	10,362	105,618	15,088	2,031,624	2,646,916
Diesel and gas oil	109,370	15,624	173,538	24,791	810,693	676,419
Gasoline	233,919	33,417	.....	.....	1,301,480	827,122
Kerosene	52,899	7,557	.....	.....	130,351	214,801
Other unfinished oil	.....	.....	3,019	431	6,439	37,097
Coastwise-domestic:						
Crude oil	60,171	8,596	157,780	22,540	1,170,801	1,424,652
Fuel oil	62,149	8,878	182,971	26,139	1,929,407	2,128,672
Diesel and gas oil	.....	.....	12,571	1,796	368,417	211,867
Gasoline	114,130	16,301	369,882	52,840	2,626,329	1,729,753
Kerosene	.....	.....	3,017	431	62,895	34,598

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	.....	157,268
Kerosene	.....	.....	.....	.....	.....	149,716
Asphalt	.....	.....	.....	.....	.....	71,325
Lubricants	.....	.....	.....	.....	1,779	12,381
Foreign exports:						
Crude oil	.....	.....	9,150	1,307	482,936	533,081
Fuel oil	.....	.....	136,753	19,536	660,402	335,798
Diesel and gas oil	.....	.....	.....	.....	160,856	125,612
Gasoline	.....	.....	.....	.....	717,152	627,812
Kerosene	.....	.....	.....	.....	163,009	121,016
Lubricants	.....	.....	.....	.....	43,008	44,246
Coastwise-domestic:						
Fuel oil	215,780	30,826	236,104	33,729	1,663,020	747,591
Diesel and gas oil	.....	.....	.....	.....	76,598	79,662
Gasoline	125,881	19,412	48,690	6,956	955,856	772,672
Kerosene	15,412	2,202	.....	.....	40,000	16,149

Tracy gas field opened last year by Amerada Petroleum Corp. Note proximity to San Francisco and location of McDonald Island where the Standard Oil Co. has started a wildcat. Mount Diablo on map is the base and meridian for all surveying work in northern and southern California

San Joaquin County

The Standard Oil Co. recently spudded in a wildcat on McDonald Island in San Joaquin County and, while this test is being drilled in search of oil production, recent developments in the general area indicate the probability that gas rather than oil will be developed if the well is finished as a commercial producer. The Standard's wildcat is located in section 25-2-4 and approximately 10 miles northwest of the Tracy gas field, discovered last year by the Amerada Petroleum Co. The latter company has not yet picked up the productive gas zone in No. 5 F.L.D. in the Tracy gas field and it will be carried down as a deep test. The Seaboard Oil Corp., which is testing out an area of approximately 25,000 acres in conjunction with the Associated Oil Co. and the General Petroleum Corp., is making preparations to drill a new wildcat in section 10-16-13. Four tests have been drilled in that section of the state extending from Tulare Lake in Kings County to the site of the present search north of Coalinga.

The Union Oil Co. is drilling two wildcats in Santa Barbara County, one of which, No. 1 Adam in section 24-10-34, is expected to result in production. This test is located in the Santa Maria Valley, where the company has already drilled three shallow wells, two of which showed small production. The area is a level plain almost entirely devoid of any geological evidence of structure. Based on development work completed, the structure seems to be a monocline. Approximately midway between Point Concepcion and Point Arguello, the Union recently spudded in No. 1 Sudden on a small anticlinal structure which appears to justify drilling operations. No. 1 Sudden is located in section 10-5-35 and is almost within throwing distance of the Pacific Ocean.

Javon Field

The Continental Oil Co. has recompleted No. 1 Hobson, the discovery well in the Javon field of Ventura County, and returned it to production flowing 560 bbls. per day from 5,501 feet. Judging by the porosity, saturation and thickness of the oil zone found by the Continental in the Javon field, this well would probably be good for approximately 2,000 bbls. per day if drilled deeper into the sand. The General Petroleum and Chanslor Canfield Midway Oil Co.

have staked locations for offsets to the Continental's discovery well.

There was no change in the status of No. 16 Luton Bell, a deep test of the Barnsdall and Rio Grande in the Elwood field of Santa Barbara County, except possibly that the additional depth recorded during the week reduces the possibility of developing commercial production in rocks of Eocene age which underlie the present productive zones in the Sespe and Vaqueros formations. The Honolulu Oil Corp. made a formation test on No. 9, located on tideland permit No. 90 and the company recovered some oil and water and estimated the blow of gas at approximately 5,000,000 feet. This well was bottomed in the Eocene at 6,545 feet in a gray sand which reacted favorably in acetone, and the packer was set at 6,410 feet.

Capitan

In the Capitan field, Santa Barbara County, Shell Oil Co. is making hole in No. 12 Covarrubias lease and drilling ahead at 2,197 feet in No. 3 Orella, and building rig for No. 10 Covarrubias. In the Piru district of Ventura County, Argood & Johnson spudded in a wildcat on the Camulos Rancho and production is expected about 2,500 feet. The Shiells Canyon district of Ventura County has become quite active during the past several months and a large part of this development was no doubt stimulated by the oil sand found in No. 128 Shiells by the Texas Co. late last year. Mechanical trouble prevented a conclusive test of the deep zone found in No. 128 Shiells and the Texas Co. accordingly started another deep exploratory test, which should reach the possibly productive zone in another three or four months. The Petroleum Securities will drill a deep test in this area, No. 1 Home Ranch in section 3-3-19. The Associated Oil Co. recompleted two wells in the Ventura Avenue field, but neither registered substantial production. No. 81 Lloyd was returned to production flowing 271 bbls. of 27.4 gravity oil per day from 7,600 feet, but the well's output is still showing a water cut of 11 per cent and the company may therefore find it advantageous to undertake some corrective work. No. 22 Lloyd also showed an excessive water cut upon being returned to production following completion at 5,340 feet. This well was brought in on the beam pumping 140 bbls. of 24.5 gravity oil per day.

Round Mountain

Two new wells were finished in the Round Mountain field of Kern County and a check of work under way indicates the probable completion of several more within the next fortnight. The Barnsdall Oil Co. added No. 4 Caldwell to its list of producers in section 7-28-29 by completing this well pumping 301 bbls. of clean 18.2 gravity oil per day from 1,884 feet after the hole had been finished with a 6⅝-inch liner carrying 62 feet of perforated. Preparations have already been started to spud in another new well on this property and the bit should be making hole within the next 10 days. The Shell Oil Co. No. 3 Caldwell in section 7-28-29 was not comparable with the Barnsdall's new well although the former may build up after the well has had an opportunity to clean itself out. No. 3 Caldwell of the Shell was brought in pumping 196 bbls. of clean 17.9 gravity oil per day from 1,780 feet. The top of the Vedder was picked up at 1,727 feet and the hole finished with a 6⅝-inch liner including 66 feet of 130-mesh screen. The California Western Oil Co. and the Honolulu Oil Corp. should each complete a new well within the next few days as both companies have potential producers standing cemented on top of the pay.

Fruitvale

The Western Gulf Oil Co. added a new well to its list of producers in the Fruitvale field of Kern County this week when No. 20-B on the Kern County Land Co. lease was brought in flowing 309 bbls. of relatively clean 21.8 gravity oil per day from 3,857 feet after the hole had been finished with a 6⅝-inch liner including 260 feet of perforated. In the Lakeview section of the Maricopa area of the Midway-Sunset field, the Hallmark Oil Co. completed its No. 4 in section 25-12-24 pumping 468 bbls. of relatively clean 22.9 gravity oil per day from 2,808 feet. In the Midway section of the Midway-Sunset field, Ed McAdams has started work on a test close to the town of Taft and may result in additional development if commercial production should be developed.

North Dome

Kettleman North Dome Association completed two new wells, one of which was the largest completion listed in this field in a long time. It was No. 85-34-J in section 34-21-17 completed at 8,090 feet and brought in flowing 6,480 bbls. of clean 33.9 gravity oil and 5,700,000 feet of gas per day after the hole had been finished with a 4¾-inch liner carrying 409 feet of perforations. Kenda's No. 47-20-J in section 20-21-17 was an ordinary completion from a production standpoint as the output of this new producer was an about a par with recent completions. No. 47-20-J was brought in flowing 1,598 bbls. of clean 37.6 gravity oil per day from 8,110 feet after completion of the hole with a 6⅝-inch liner carrying perforations at 7,800-7,905 feet and at 8,015-8,110 feet. In addition to the oil produced by this new completion, the well is flowing 2,390,000 feet of gas per day. The initial daily production of No. 47-20-J just about represents the well's maximum production as it is producing through a 2-inch bean.

Santa Fe Springs

The Union Oil Co. finished an excellent well in the Santa Fe Springs field of Los Angeles Basin when No. 8 Alexander was recompleted after the hole had been plugged back from 4,355 feet to 3,820 feet. No. 8 Alexander was returned to production pumping 331 bbls. of clean 31.8 gravity oil per day, the rejuvenation work changing a 35-bbl. pumper into a well showing almost 10 times the old settled production in the lower horizon. At Long Beach, the Shell recompleted No. 6 Nesa after cleaning out the hole to bottom, 4,467 feet, and returned the well to production pumping 60 bbls. of 26.1 gravity oil cutting 10 per cent. The Richfield district yielded a small well this week when the Standard's No. 1 Yorba Community was finished pumping 25 bbls. of 20.8 gravity oil per day from 2,656 feet after the hole had been plugged back from 2,714 feet.

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By GEORGE WEBER

EXTEND TWO LEADING FIELDS

SAN PATRICIO TEST SHOWING

SAN ANTONIO, Tex., Mar. 31.—Extension of the Seven Sisters field by the completion of Humble Oil & Refining Co. No. 2 Wright, located a mile north of production, indicated production in a Samfordyce north outpost test, and a show of oil in a San Patricio County wildcat constituted the highlights of the week's drilling operations in Southwest Texas.

The volume of drilling in this section continues to increase, with the past week's gains shared by both wildcat areas and proven fields. The centers of field development, the Government Wells area and the Lower Coastal Region of San Patricio and Nueces Counties, fail to show any indication of a decline. Both regions are seeing a gain in wildcatting along with nearly all other counties of this section.

Two setbacks occurred in the Saxet Heights or Corpus Christi field of Nueces County. This new field which has been the scene of intense drilling activity for several weeks is apparently defined on the southwest. Also a test on the south edge of the field, which has been carefully watched by operators as a possible opener of production in a new horizon, tested salt water late in the week. The well is Culton and Republic Natural Gas Co. No. 1-C Baldwin. A test of sand taken at 5,195-5,202 feet was finally obtained after several unsuccessful attempts, and the 20-minute test showed nearly 1,900 feet of salt water, with an odor of gasoline. The test is located south of the Texas-Mexican R.R. and State Highway 16, in Block 14 of the J. C. Russell Farm Lots.

Another failure was shown in J. P. Nash No. 1 Hatch, located in Block "F" of the McBride Partition. This test made salt water in the sand of the field at 4,092-4,100 feet and is shut down awaiting orders. The deep test in the field, Tom Graham's No. 1 Whelan, was drilling below 5,000 feet at latest reports with no shows.

The field has now passed the 40 mark in number of producers, and approximately 30 wells are drilling or getting under way. During the past week six producers were completed, ranging up to a high of 600 bbls. per day initial output.

Saxet Active

In the Saxet field, to the west of Corpus Christi, several rigs were active, particularly in the immediate vicinity of Clarkwood. The westward extension given this field by the completion of Morgan Gulf Oil Co. No. 1 Morgan, northeast of Clarkwood, will add much to the development of the field.

A test of oil was obtained in a short drill stem test on the Benedum & Trees Oil Co. No. 2 Welder, located between the Plymouth and Sinton fields of San Patricio County late in the week. In testing a sand at 5,696-5,710 feet, the testing tool slipped and was open but four minutes. However, 200 feet of oil and 100 feet of mud were recovered. The wildcat is located in section 19, about 3½ miles west of production in Plymouth. A test is being started east of this wildcat on the Welder ranch by one of the owners under the name of Portilla Oil Co.

Interesting Well

Attention in the Lower Rio Grande Valley area is directed to a north outpost test of the Samfordyce field in Hidalgo County. J. T. Barlow No. 1 Marta Flores de Chapa, located about 3,500 feet north of production in the field, tested 66 feet of pipe line oil in five minutes at 2,951.5-55 feet. Working pressure of 475 pounds was recorded. The sand is reported to be 100 feet higher than the field sand. This, together with the fact that the oil is of slightly higher gravity than Samfordyce oil, indicated that the sand might not be that from which production is obtained in the field to the south.

In Hidalgo County three wildcats are active and three are shut down awaiting orders. In the Mercedes field on the eastern edge of the county, Union Sulphur Co. is coring for the sand in one test and reworking a second. The deep test which will attract much attention to the valley is getting under way in Willacy County in the Salt Lake region near La Sal Vieja. It is Shell Petroleum Corp. No. 1 Yturria Land & Livestock Co. and is contracted to go 9,200 feet of production.

Plymouth Results

In the Plymouth field proper, two good producers were completed for the Plymouth Oil Co. A new operator in the field, Humble Oil & Refining Co. is getting under way with No. 1 Bevly, on the southeast edge of the field in section 35.

In the Taft field, Humble was waiting on cement after setting casing at 4,100 feet in a workover job on the No. 1 Godwin. Discovery of production in a new horizon in this field has revived interest considerably after two dry holes had been drilled offsetting the discovery well.

Wildcats are drilling throughout Nueces and San Patricio Counties. Five active tests are making hole in Nueces County and four are drilling in San Patricio County. Locations for five additional wildcats to be drilled in this area have been staked.

Failures in Starr

Starr County activity led to two failures during the week. Phillips Petroleum Co. No. 3 Garcia Land & Cattle Co., located in the W half of Porcion 100, was abandoned dry at 2,811 feet after the sand at 2,788-92 feet failed to show production. The test is located in the northwest section of the Samfordyce field. A second failure occurred in the Rio Grande City field when the Fech Oil Co. No. 6 Frank Doyno was abandoned in dry sand at 1,448-50 feet. One producer was added to Samfordyce, being Anderson's No. 2 Guerra.

14 New Wells in Loma Novia

Drilling in the Loma Novia field during the past week resulted in the completion of 14 producers, by far the largest of any field in Southwest Texas. One, Sun Oil Co. No. 2 Hubbard, was an eastern edge well located in the southeast 174 acres of section 84. The remainder were inside locations, centering in the south portion of the field.

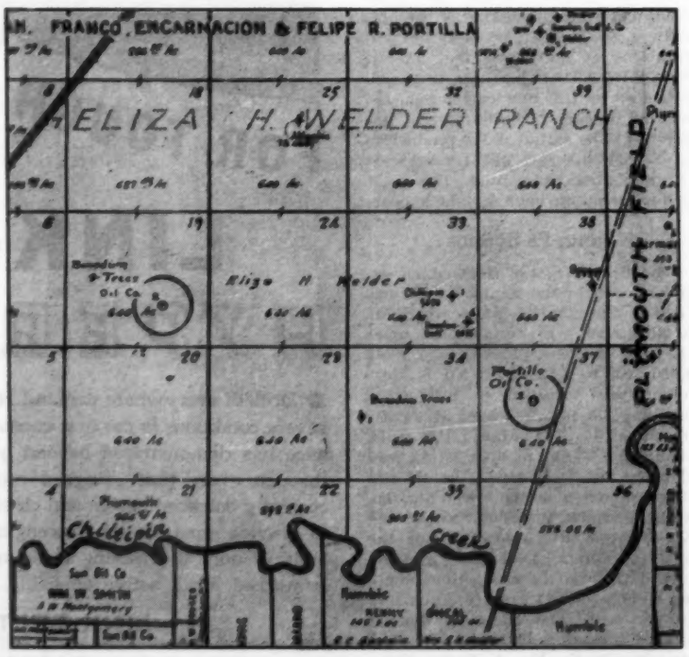
Seven Sisters gained five new producers, including Humble Oil & Refining Co. No. 2 Wright. This semi-wildcat, located a mile north of production in the field, was brought in for an initial of 24.14 bbls. per hour on a one-half inch choke from sand at 2,522-33 feet. Casing pressure of 195 pounds and tubing pressure of 25 pounds were recorded. The well opens section 307 to apparent proven production, all of which is held by Humble. Drilling and development continue evenly throughout the field, with production being brought in from the Government Wells sands and the Chernosky sand. One Loma Novia sand producer was completed northeast of the field several weeks ago, but no further development in this horizon has followed.

The Lopez field continued most active in Webb County, four producers being brought in during the week and one test abandoned. Three wells were added to the O'Hern field in the same county.

Production is being sought in sand at 2,874-85 feet by the Plymouth Oil Co. in the No. 1 Cuellar, located in the Hoffman field south of Loma Novia. The test is flowing about 100 bbls. of fluid per day consisting of 60 per cent oil. The hole is bottomed at 2,885 feet. In the same field, Rogers & Rogers are plugging back from a total depth of 3,605 feet to the Government Wells sand to complete as a gasser. Three other tests are drilling in this field where oil production was found recently in the Loma Novia sand.

Six rigs are active in the Pearsall field of Frio County with casing set on Amerada Petroleum Corp. No. 1 Correy & MacWilliams in Tract 3. An early completion is expected with the possibility of another large producer being added to the field.

Considerable activity is beginning in the Callihan area of McMullen County, and wildcatting is active in Duval, Live Oak and McMullen Counties.



Circles indicate two wildcats being drilled between the Plymouth and Sinton fields, San Patricio County. The Benedum & Trees No. 2 Welder has tested oil from sand at 5,696-5,710 feet

Map by Porter Regenold, Corpus Christi

Rocky Mountain Area

WELL IN LEA COUNTY FLOWS 1,243 BBLS. IN ONE HOUR TEST

By T. R. INGRAM

DENVER, Colo., Mar. 30.—The best completion so far reported in the Sundance sand in the Rock River field in Wyoming was the Ohio Oil Co. No. 8 Harrison & Cooper, which swabbed 900 bbls. first 24 hours. One small well was completed in the Osage field. The Wyoming state land board may liberalize leases on state land to encourage wildcatting.

Two completions and five new locations were reported in the Cut Bank field in Montana. Cobb-Reagan No. 1 Jackson swabbed 130 bbls. first 16 hours and R. C. Tarrant No. 5 Getty pumped 94 bbls. first 24 hours. One small well was completed in the Kevin-Sunburst pool.

The Continental Oil Co. No. 52 Tribal, on the Rattlesnake dome, northwestern New Mexico, flowed 38 bbls. in 15 hours at 728 feet.

SOUTHEASTERN NEW MEXICO

Completions in the Monument field in Lea County, New Mexico, in the past week included three large natural flowing wells, one of which was said to be the biggest producer yet to be completed in New Mexico without artificial assistance. This was Barnsdall Oil Co. No. 4 Cooper, C SE NE section 12-20-36. It produced 1,243 bbls. in one hour on open flow and later, in the first 24-hour test the well flowed 4,800 bbls. of oil through three-quarters inch choke on tubing. The rich oil pay was encountered at 3,790 to 3,890 feet, total depth. Gas was estimated at 10,000,000 feet. At 3,805 feet, it flowed 400 bbls. in 30 minutes while drilling. Location is on a 320-acre block in the E half E half section 12-20-36, and W half W half section 7-20-37. Three other wells have been completed on the block, one producing as high as 1,178 bbls. an hour when open after acid treatment.

Texas Co. No. 2 State "G," C SW SW section 19-19-37, flowed 3,888 bbls. natural in 24 hours and was completed. It had oil pay at 3,875-4,004 feet, total depth.

Anderson-Prichard Oil Co. No. 2 Britt, C NE NW section 7-20-37, another big natural flowing well at Monument, produced 4,488 bbls. through tubing in the first 24 hours, completed. Oil pay was found at 3,826-3,847 feet, total depth. Gas gauged 2,231,000 feet.

Amerada Petroleum Corp. No. 1 State "M," C SE NW section 2-20-36, another Monument completion, was acidized and produced 1,920 bbls. of oil through 1-inch tubing choke in 24 hours. Gas measured 1,344,000 feet. Oil pay was encountered at 3,813-3,920 feet, total depth. Gulf Oil Corp. completed a good natural flowing producer at No. 1 Graham-State "F," SE cor. section 36-19-36. Oil pay was had at 3,785-3,900 feet, and the hole was carried to 4,024 feet and plugged back to 3,900 feet when sulfur water was encountered at the lower depth. After plugging back it flowed 1,272 bbls. of oil natural through tubing in 24 hours, and produced 1,201,000 feet of gas.

In the Eunice area, Lea County, Continental Oil Co. No. 1-B-18 Meyer, C SE NW section 18-21-36, flowed 3,254 bbls. of oil through tubing in the first 24 hours of completion test. Gas measured 2,440,000 feet. The oil pay was topped at 3,903 feet and bottomed at 3,942 feet, total depth. Gulf Oil Corp. No. 1 Graham-State "E," C SW SE section 6-21-36, topped oil pay at 3,810 feet and was bottomed in it at 3,890 feet. It was acidized and flowed 484 bbls. through tubing in 24 hours and produced 1,572,000 feet of gas.

The only completion in the Cooper area was a gasser. It was Gulf Oil Corp. No. 2 J. M. Cooper, C NW SE section 14-24-36. After finding gas sands at 3,341 to 3,350 feet, it was drilled to 3,698 feet, total depth, and plugged back to 3,550 feet to shut off sulfur water. It was shot and acidized after plugging back, produced 14,668,000 feet of gas, completed.

Ohio Oil Co. completed a small produced in the Ohio, or McDonald pool, with No. 4 State-McDonald, C SE SE section 16-22-36. It had oil pay at 3,868-3,920 feet, total depth, was acidized and produced 70 bbls. in 24 hours.

The only Hobbs area completion was a failure. Gulf Oil Corp. No. 1 Steve Taylor, C SE NE section 24-18-38, drilled to 4,883 feet, total depth, and swabbed sulfur water. It was plugged back to 4,587 feet, shot with 30 quarts without results, and was dry and abandoned. Location is 3 miles northeast of the Hobbs pool.

Gulf Oil Corp. No. 1 A. L. Christmas, SE SE SE section 27-22-36, a wildcat, produced 27,450,000 feet of gas, with 1,400 pounds rock pressure, and was completed. Gas sands were had at 3,209-3,625 feet. The hole was carried to 4,310 feet, total depth, but was plugged back to 3,625 feet when the samples showed sulfur water.

In Eddy County, Emperor Oil Co. No. 2 Puckett, C NW NE section 24-17-31, flowed 100 bbls. of oil natural through tubing in 24 hours, produced 1,000,000 feet of gas and was completed. Top of oil pay was 3,780 feet; total depth 3,933 feet in pay.

Cooper Area

Republic Prod. Co. No. 1 Davis, C SW SW sec. 34-23-36. S.D. indefinitely.
General Crude Oil Co. No. 1 State "F," C SW SW sec. 2-24-36. T.D. 3,624 ft.; flowed 520 bbls. fluid in 24 hrs., 50 per cent water; to set packer.
Liberty Oil & Drlg. Co. No. 1 J. W. Hair, C SW SE sec. 24-24-37. Drlg. 1,360 ft.
Plains Prod. Co. No. 1 R. L. Mosley, C NW SE sec. 34-24-37. Drlg. 2,555 ft.

Lea County—Miscellaneous

Culbertson-Irwin & Stovall No. 1 J. B. Humphrey, C SE SW sec. 3-25-37. Drlg. 2,806 ft.
Plains Prod. Co. No. 1 George Smith, C SE SE sec. 4-25-37. Drlg. 1,935 ft.
Culbertson-Irwin & Stovall No. 1 J. A. Stuart, C SW SE sec. 10-25-37. Drlg. 3,630 ft.
Harry Leonard No. 1 Justice, SW NW NW sec. 20-25-37. T.D. 3,501 ft.; P.B. 2,970 ft.; fishing.
Harry Leonard No. 1 Leonard-Lanhart, C SW NE sec. 21-25-37 (on Humble acreage). T.D. 2,975 ft.; fishing.
Texas Co. and Repollo Oil Co. No. 1 Lanchart, C NE sec. 29-25-37. Drlg. 1,029 ft.
Stanolind O. & G. Co. No. 29 Cyrus Farnsworth, C SW NW sec. 18-26-37. T.D. 3,060 ft.; P.B. 3,050 ft.; D.S.T. showed 50 bbls. fluid per hr.; P.B. 3,035 ft.; waiting.
W. L. Todd et al No. 1 Lemon Permit, C NW SW sec. 17-21-32. T.D. 3,704 ft.; S.D., contract depth.
Maljamar O. & G. Co. No. 6 Baisch, C NW SE sec. 21-17-32. Drlg. 3,733 ft.

Ohio Area

Ohio Oil Co. No. 1 State-Maxwell, C NE NW sec. 16-22-36. T.D. 3,926 ft.; flowed 140 bbls. fluid daily, 20 per cent water; may acidize.
Shell-Devonian No. 1 Christmas, C NE NE sec. 21-22-36. Drlg. 3,044 ft.

Sims Area

Samedan Oil Co. No. 1 Parks, 330 ft. from S and 400 ft. from W lines, SW¼ sec. 14-22-37. Drlg. 1,300 ft.
Continental Oil Co. No. 1-A-22 Elliott, C SW SW sec. 22-22-27. Drlg. 820 ft.
Skelly Oil Co. No. 1 B. L. King, C SW SE sec. 32-22-37. T.D. 3,680 ft.; shot with 230 qts.; swabbed 75 bbls.
Skelly Oil Co. No. 1 Ella Simms, C SW NE sec. 3-23-37. Location.
Skelly Oil Co. No. 1 A. L. King, C SE NW sec. 4-23-37. Drlg. 3,548 ft.
Penrose & Rowan No. 2 Cary, C NE SW sec. 22-22-37. Rigging up.
Sun Oil Co. No. 1 Richards, C NE SE sec. 6-23-37. Location.

Hobbs Area

Shell Pet. Corp. No. 1 State "E," C E half SE SE sec. 14-18-37. T.D. 4,374 ft.; P.B. 4,178 ft.; shut down.
Sun Oil Co. No. 1 McKinley, SW SW NE sec. 20-18-38. T.D. 4,242 ft.; est. 15 bbls. daily; to tube and test.
Gulf Oil Corp. No. 4 North Grimes, SW SW NE SW sec. 21-18-38. Drlg. 3,284 ft.
J. P. Cusack No. 2 Moon "B," SW cor. NE sec. 28-18-38. T.D. 227 ft.; drlg. 1,905 ft.
Continental Oil Co. No. 3-B-13 State, C NE SW sec. 13-18-37. Rig.

Eddy County

Etz Bros. No. 2 State, C NW SW NE sec. 16-17-30. Drlg. 2,125 ft.
Ohio Oil Co. No. 1 State-McCullough, SE SW SW sec. 16-17-30. T.D. 2,679 ft.; fishing.
Premier Pet. Corp. No. 2 Dexter "E," NW SW NE sec. 20-17-30. Drlg. 1,970 ft.
Tignor, Etz & Keys No. 1 Keys "B," sec. 3-17-28. T.D. 700 ft.; S.D. for repairs.
Red Lake Oil Co. No. 6 State, NE NE SW sec. 22-17-28. Spudded.
D. & B. Oil Co. No. 1 Jenkins, NW SW NW sec. 20-17-30. T.D. 3,258 ft.; testing; est. 200 B.P.D.
Dexter & Berry No. 1 Berry, NW NE NW sec. 21-17-30. Drlg. 970 ft.
F. W. & Y. Oil Co. No. 73 State, NE NW NE sec. 10-19-28. T.D. 2,149 ft.; cleaning out.
Dooley & Dixon No. 1 Commerce, C W½ NW NW sec. 18-20-27. T.D. 423 ft.; S.D. for repairs.
Tex Pattillo No. 2 Thomason, NE cor. sec. 1-20-28. T.D. 793 ft.; S.D.

Chaves County

Tannehill No. 2 Campbell, C NE SE sec. 1-11-25. Drlg. 935 ft.

Eunice Area

Continental Oil Co. No. 6-B-4 Meyer, C S half SE NW sec. 4-21-36. Drlg. 3,403 ft.
Continental Oil Co. No. 7-B-4 Meyer, C NW SE sec. 4-21-36. T.D. 2,681 ft.; S.D. for fuel.
Continental Oil Co. No. 8-B-4 Meyer, C SW NE sec. 4-21-36. Drlg. 2,685 ft.
Gulf Oil Corp. No. 8 Bell-Ramsey-State, C NW NW sec. 4-21-36. Rig.
Devonian Oil Co. No. 3 State-Heasley, C NE NE sec. 5-21-36. Drlg. 3,484 ft.
Gulf Oil Corp. No. 1 Orcutt, C SW SE sec. 5-21-36. T.D. 3,862 ft.; drilled by at 2,670 ft.; cmtd. new hole.
Gulf Oil Corp. No. 2 Orcutt, C NE NE sec. 5-21-36. T.D. 1,210 ft.; set 7-in. csg.
Humble O. & R. Co. No. 3 Adkins, C NE SW sec. 10-21-36. Rig.
Humble O. & R. Co. No. 1 J. D. Knox, C NW SE sec. 10-21-36. Drlg. 3,794 ft.
Gulf Oil Corp. No. 2 Bell-State "C", C SW NW sec. 16-21-36. T.D. 1,470 ft.; set 7⅝-in. csg.
Tide Water Oil Co. No. 2 State "D", C SW SE sec. 16-21-36. T.D. 3,834 ft.; set 5½-in. csg.
Tide Water Oil Co. No. 3 State "D", C NE SE sec. 16-21-36. Drlg. 2,456 ft.
Continental Oil Co. No. 4-A-18 Lockhart, C SW SW sec. 18-21-36. T.D. 3,927 ft.; acidized; flowed 60 bbls. in 7 hrs.; re-acidized; waiting.
Continental Oil Co. No. 4-A-18 Meyer, C SW NE sec. 18-21-36. T.D. 275 ft.; set 12½-in. csg.
Gulf Oil Corp. No. 5 Arnott-Ramsey "C", C SE SW sec. 21-21-36. Drlg. 3,755 ft.
Gulf Oil Corp. No. 6 Arnott-Ramsey "C", C NE NW sec. 21-21-36. T.D. 1,469 ft.; set 7⅝-in. csg.
Continental Oil Co. No. 3-B-28 Lockhart, C NW SW sec. 28-21-36. T.D. 3,850 ft.; drill stem stuck; showed 2,900 ft. of oil; no gas.
Continental Oil Co. No. 4-B-28 Lockhart, C SW SW sec. 28-21-36. T.D. 3,930 ft.; tested 30 bbls. sulfur water.
Continental Oil Co. No. 5-B-28 Lockhart, C NW NE sec. 28-21-36. Drlg. 2,860 ft.
Empire G. & F. Co. No. 2 Felton, C SE NW sec. 28-21-36. Drlg. 3,585 ft.
Humble O. & R. Co. No. 9 State "B", C NE SW sec. 29-21-36. Drlg. 1,422 ft.
Continental Oil Co. No. 2-A-30 Lockhart, C NE NE sec. 30-21-36. T.D. 3,983 ft.; testing.
Empire G. & F. Co. No. 4 State "D", C SE NE sec. 32-21-36, five-eighths mile N part of No. 157 lease; T.D. 3,930 ft.; swabbed 12 bbls. per hour after acidizing; to shoot.
General Crude Oil Co. No. 1 State, C NW SW sec. 32-21-36, one-half mile NW part No. 157 lease; T.D. 3,974 ft.; 3,500 ft. fluid in hole.
Empire O. & R. Co. No. 5 State "D", C NE NW sec. 32-21-36. Rigging up rotary.
Gulf Oil Corp. No. 2 Janda "B", C NE SE sec. 32-21-36. T.D. 380 ft.; set 10¾-in. pipe.
Gulf Oil Corp. No. 1 Arnott-Ramsey "D", C NW NW sec. 33-21-36. T.D. 3,637 ft.; fishing.
Barnsdall Oil Co. et al No. 1 Hardy, C SE NE sec. 29-21-37. T.D. 3,800 ft.; hole full of oil; swabbed 175 bbls. of oil; acidized; flowed 225 bbls. in 24 hrs.; shut in.
The Texas Co. No. 1 State "H", C SE SE sec. 31-20-37, west offset No. 196 lease. T.D. 1,185 ft.; drlg. plug.
Shell Pet. Corp. No. 1 State-Endura "D", C SE NW sec. 11-21-35. Drlg. 3,555 ft.
Shell Pet. Corp. No. 1 State "H", C SE SE sec. 13-21-35. Drlg. 3,804 ft.
Continental Oil Co. No. 6-A-17 Meyer, C NW SW sec. 17-21-36. Building rig.
Continental Oil Co. No. 5-A-18 Meyer, C SE NE sec. 18-21-36. Location.
Jim Murray No. 2 Wallace, C NW NW sec. 3-21-36. Rigging up rotary.
Continental Oil Co. No. 1-B-14 Lockhart, C SW NW sec. 14-21-36. Location.
General Crude Oil Co. No. 2 State "E", C NE SW sec. 32-21-36. Cellar.

Monument Area

Texas Co. No. 2 Saunders, C SW SE sec. 18-19-37. T.D. 1,375 ft.; set 9⅝-in. csg.
Gulf Oil Corp. No. 4 Culp, C SW NE sec. 19-19-37. T.D. 3,988 ft.; swabbing to test.
Gulf Oil Corp. No. 5 Culp, C SE NE sec. 19-19-37. T.D. 3,823 ft.; set 5½-in. csg.
Texas Co. No. 1 State "G", C SE SW sec. 19-19-37. T.D. 3,787 ft.; waiting on whipstock.
Oilwell Drlg. Co. No. 1 State "A", C SW NE sec. 29-19-37. Drlg. 1,425 ft.
Gulf Oil Corp. No. 1 Luthy, C SW NW sec. 29-19-37. Drlg. 1,595 ft.
Amerada Pet. Corp. No. 1 State "O", C NW NE sec. 30-19-37. T.D. 2,500 ft.; set 8⅝-in. csg.
Continental Oil Co. No. 1-C-30 State, C NE NW sec. 30-19-37. Drlg. 2,760 ft.
Continental Oil Co. No. 2-C-30 State, C NW SW sec. 30-19-37. T.D. 2,580 ft.; set 7⅝-in. pipe.
Ohio Oil Co. No. 1 State-Elliott, C NW SE sec. 30-19-37. Drlg. 3,662 ft.
Amerada Pet. Corp. No. 1 Culp, SW SW SE sec. 31-19-37. Drlg. 2,800 ft.
Anderson & Prichard Oil Corp. No. 1 Britt "A", C SE SW sec. 6-20-37. Drlg. 2,895 ft.
Texas Co. No. 1 Phillips, NW NW NW sec. 6-20-37. T.D. 3,908 ft.; preparing to test.
Gulf Oil Corp. No. 2 Graham-State "C", C NW NE sec. 24-19-36. T.D. 4,060 ft.; acidized; waiting.
Texas Co. No. 2 State "F", C SE SE sec. 24-19-36. Drlg. 3,924 ft.

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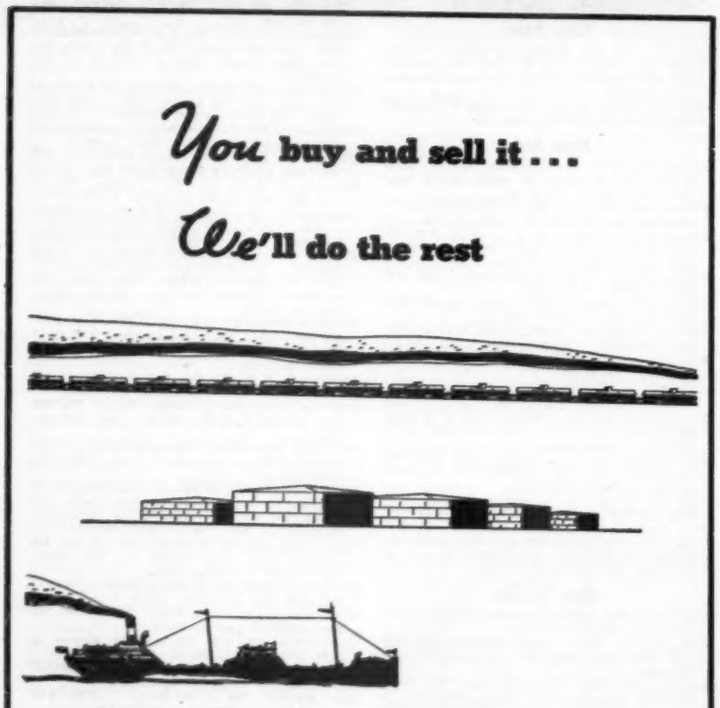

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Amerada Pet. No. 1 Weir "A", C NW SW sec. 25-19-36. T.D. 3,959 ft.; acidized; swabbing.
Skelly Oil Co. No. 1 Christmas, C SW SW sec. 25-19-36. T.D. 3,790 ft.; set 7-in. csg.
Amerada Pet. Corp. No. 3 Weir, C NW SW sec. 35-19-36. Drlg. 1,400 ft.
Shell Pet. Corp. No. 2 State "B", C NW NW sec. 36-19-36. Drlg. 2,491 ft.
Amerada Pet. Corp. No. 2 Weir, C NW NW sec. 2-20-36. T.D. 3,810 ft.; set 6⅝-in. csg.
Amerada Pet. Corp. No. 3 State "J," C NE SW sec. 2-20-36. Drlg. 2,350 ft.
Continental Oil Co. No. 1-A-3 J. L. Reed, C NE NE sec. 3-20-36. Drlg. 2,623 ft.
Gulf Oil Corp. No. 6 Culp, C NW NE sec. 19-19-37. Moving in material.
Gulf Oil Corp. No. 2 Graham-State "D," C SE SE sec. 19-19-37. Building rig.
Shell Pet. Corp. No. 2 State "D," C NE SE sec. 19-19-37. Rigging up.
Gulf Oil Corp. No. 1 G. C. Mathews, C SW SE sec. 6-20-37. Rigging up.
Gulf Oil Corp. No. 1 A. B. Reeves, C NW SW sec. 29-20-37. Wildcat; location.
Gulf Oil Corp. No. 3 Graham-State "C," C SW NE sec. 24-19-36. Cellar and pits.
Amerada Pet. Corp. No. 4 Weir, C SE NW sec. 35-19-36. T.D. 235 ft.; set 12½-in. casing.
Sun Oil Co. No. 5 Weir, C SW NE sec. 35-19-36, Location.
Sun Oil Co. No. 6 Weir, C NW NE sec. 35-19-36, Location.
Texas Co. No. 2 Mattern, C SW SW sec. 20-19-37. Cellar.
Amerada Pet. Corp. No. 1 State "P," C NW SW sec. 29-19-37. Location.
Amerada Pet. Corp. No. 1 State "R," C NE SW sec. 29-19-37. Location.
Amerada Pet. Corp. No. 2 State "O," C SW NE sec. 30-19-37. Cellar.
Texas Co. No. 3 Phillips, NE NE NW sec. 6-20-37. Building rig.
Amerada Pet. Corp. No. 1 Weir "B," C SW NE sec. 26-19-36. Building rig.
Amerada Pet. Corp. No. 2 Phillips, C SE NE sec. 1-20-36. Cellar and pits.
Amerada Pet. Corp. No. 2 State "H," C NW SE sec. 1-20-36. Cellar and pits.
Skelly Oil Co. No. 2 State "D," C NE SE sec. 1-20-36. Cellar and pits.
Texas Co. No. 4 State "E," C NE SW sec. 1-20-36. Location.

NORTHWEST NEW MEXICO

Bernalillo County

Norine Realty Co., Inc., No. 2 Gallegas grant, SE NW NW sec. 19-11n-4e. Drlg. 1,200 ft. in sand and gravel.

Harding County

Khaay et al No. 1 De Baca, C sec. 19-20n-31e. Running 8¼-in. at 847 ft.; 10-in. at 250 ft.

McKinley County

Seward et al No. 1 State, NE SE SE sec. 2-19n-9w. Drlg. 585 ft. in shale.
Seward et al No. 1 fee, C NW SE sec. 35-20n-9w. S.D. 427 ft. in shale.
Dave Stacey No. 1 State, NE NE SW sec. 21-20n-9w. Drlg. 100 ft.
Forth & Hickerson No. 3 Santa Fe, NE NW NE sec. 29-20-9w. Drlg. 454 ft.; show of oil at 452 ft.
Foster & Clark No. 1 Railroad Land, NE NE NW sec. 2920-9w. Rigged and ready to spud.
Montrose O. & G. Co. No. 1 State, NE NE sec. 28-20n-9w. Rigging up spudder (first report).

Quay County

Quay County Dev. Co. No. 1 Wallace, SW SW SE sec. 19-9n-33e. S.R. 816 ft.; rainbows at 814 ft.; show of S.W. at 775 ft.

Rio Arriba County

El Vado Structure Properties Co., Ltd., No. 1 Tierra Amarilla grant, NE sec. 26-3s-1e (unsurveyed).

San Juan County

The Continental Oil Co. No. 52 Tribal, NE SE NW section 2-29-19w, Rattlesnake pool, was completed at 728 feet as a flowing well in the Dakota at 720-28 feet. It made 38 bbls. in 15 hours. The Southern Union Gas Co. No. 5 Government, C NE NE section 14-28-11w, Kutz Canon district, was completed as a gas well at 1,970 feet, but is not yet gauged. The 7-inch was cemented at 1,809 feet.

Atchison & Galloway No. 1 Patd., C SE SE sec. 19-29n-11w. R.U. machine (first report).
W. L. Hair No. 1 Hair, NE NW NE sec. 23-29n-11w. Set 8¼-in. at 112 ft. (first report).
Jack Amenda No. 3, SW NW SW sec. 25-30n-12w. Drlg. 1,275 ft.; show of 22,000 ft. of gas at 935-65 ft.
Jack Amenda No. 4 fee, NW NE SW sec. 25-30n-12w. Drlg. 648 ft. in sand; water at 601-07 and 647 ft.
J. D. Cross et al No. 1 Wilson, SW SW SE sec. 17-30-11w. S.D. 510 ft.
Cross & Pool No. 1 Aztec, sec. 1-30-11w. Making water shutoff at 740 ft.
Nick Spatter No. 1 fee, C NE SW sec. 32-21-11w. S.D. 1,780 ft. in shale.
Southern Union Gas Co. No. 6 Government, C NW NW sec. 19-28-10w. M.I. machine.

San Miguel County

Cabra Springs O. & G. Co. No. 1 Cabra Springs ranch, SW NE NE sec. 32-12n-22e. T.D. 4,045 ft.; prep. to resume.
Sabra Springs O. & G. Co. No. 1 Jones ranch, SW SW SW sec. 31-13n-32e. T.D. 726 ft.; prep. to build standard rig to replace Fort Worth spudder.

Torrance County

45 Pet. Co. No. 1 Greenfield, C NW SW sec. 17-9-8e. Drlg. 1,500 ft.; show of gas.
Bruce Frazier No. 1 Frazier, SE sec. 12-2n-31e. Drlg. 1,500 ft.; show wet gas.

COLORADO

Adams County

Glenridge Oil Corp. No. 1 Hills, SE SE NE sec. 27-3s-64. T.D. 4,415 ft.; recmtd. caves.
Riddle Pet. Co. No. 1 Baxter, C SW sec. 2-3s-6w. S.D. 700 ft. for D.P.

Archuleta County

Wm. E. Hughes Est. No. 4 fee (unsurveyed), CSL SE SE sec. 24-33n-3e. No report; snowed in by blizzard.
Oil City Pet. Co. No. 1-A Garnett, NW NE NW ssec. 25-33n-2e. S.D. 1,515 ft.; top Dakota series 1,415 ft.
Oil City Pet. Co. and Archuleta O. & G. Co. No. 1 Reeder, Lot 5 (SW SE SW) sec. 24-33n-3e. Drlg. at 100 ft. in boulders and gravel.
H. L. Kendrick No. 1 Crowley (unsurveyed), sec. 2-32-1. S.O.&W. in Morrison at 922 ft. with 8¼-in.

Baca County

Paul Robb et al No. 1, NW NW NW sec. 24-32-48w. Drlg. and pit, and wtr. well rig.

Cheyenne County

Brittel Oil Co., Inc., No. 1 Steip, C NE NW sec. 26-12s-47. Rigged up and ready to spud.

Jackson County

Colorado Oil Ref. Co. No. 1 North Park Coal Co., NW NW sec. 18-9n-78w. Drlg. 2,200 ft.

Jefferson County

Rainbow Oil Co. No. 1 Johnson, NE sec. 20-4s-68. Drlg.
Ruby Hill O. & G. Co. No. 1 Braden, SE cor. sec. 24-4n-69. T.D. 4,415 ft.; rec. baller; resumed.

La Plata County

McGarr Pet. Co. No. 1 Pinton Mesa, CSL NE NE sec. 24-35n-13w. T.D. 1,300 ft.; running 10-in.

Lincoln County

Consolidated Smelting & Metals Co. No. 1 Hancock, NE NE sec. 7-17s-52. Drlg. 1,950 ft.

Morgan County

Swisher et al No. 1 Lunt, 92 ft. W of E line and 360 ft. N of S line, sec. 3-4n-60. T.D. 1,388 ft.; U.R. 4½-in.

Moffat County

Ohio Oil Co. No. 1 Robertson, C SW SW sec. 3-6n-92w. Loc.
Texas Co. No. 7 Knowlton, NE cor. Lot 8, sec. 10-4n-91w. T. D. 4,505 ft.; cmtd. 6⅝-in.

Montezuma County

McElmo Oil Co. No. 1 West, NE NW NE sec. 21-36n-17w. Contracted with Perry Coon to comp.; T.D. 3,705 t.; preparing to drillf by tools.

Park County

South Park Oil Co. No. 1 State, SE NE SW sec. 16-11s-75w. Drlg. 4,000 ft.; 6⅛-in. at 3,990 ft.

Routt County

Mid-Colo Pet. Co. No. 1 Omoholt, NE SE SE sec. 29-4n-87w. S.D. 2,860 ft. on account of weather.

WYOMING

The Wyoming State Board of Land Commissioners has under consideration proposed changes in leasing regulations to liberalize same and make them more attractive to wildcatters. Changes proposed include the granting of leases for 10 years instead of five; granting of permits on state land for geophysical research with prior right to lease such land, authorize the leasing of more than 640 acres to a single party.

Albany County

California Co. No. 3 Hoist, 1,650 ft. W of E line and 970 ft. N of S line, sec. 18-17n-77w. T.D. 3,295 ft.; redrlg. to straighten.
California Col No. 1 Wilson, NW SW SW sec. 18-17n-76w. M.I. rotary equipment to resume at 1,010 ft.

Big Horn County

J. W. Bales No. 1 Parker, C SW SW sec. 23-4-89. S.D. 690 ft. for pipe.
Peter Evanhoff et al No. 1 McAllister, Lot 4, NW NE SE sec. 35n-87w. T.D. 2,350 ft.; C.O.
Ohio Oil Co. No. 1 Orson Vail, SW NW NE sec. 23-56n-97w. Location (first report).
Ohio Oil Co. No. 1 Robert Till, C SE SW sec. 24-56n-97w. Cmtd. 12½-in. at 390 ft.; W.O.C.
Ohio Oil Co. No. 4 Byron Union, SW SW NE sec. 22-56-97. T.D. 5,735 ft.; Ember 5,587-5,710 ft.; top Tensleep at 5,710 ft.;

sat. in top followed by water; P.B. to 5,719 ft.
Montana-Wyoming Oil Co. No. 1 Allen, 270 ft. from N line, 930 ft. from E line, Lot 52 (SE NW SE) sec. 32-56n-97w. T.D. 3,835 ft.; running 9⅝-in. to 570 ft. to stop cratering; fshg. for D.P.
Peay Oil Co. No. 1 Denio, Tract 42-C, sec. 15-55n-97w. T.D. 3,890 ft.; swabbing to test S.O.; 8¼-in. at 2,800 ft.
J. H. Shaffer No. 1 Keachie, C SW SW sec. 5-49-61. T.D. 1,450 t.; sidetracking tools at 1,366 ft.
W. O. Taylor et al No. 1 Hoskins, Lot 5 (SE SE) sec. 25-56n-97w. T.D. 5,370 ft.; fshg. D.P.; 350 ft. rec.

Campbell County

G. J. Sherin et al No. 1 Rhodes, NE SE C sec. 24-49n-74w. Derrick up, sump and reservoir completed (cor. loc.).

Carbon County

The Ohio Oil Co. has the best completion in the Sundance sand in the Rock River field reported since it began deepening old wells to that horizon last year in its No. 8 Harrison & Cooper, CWL SW section 35-20-78. It was deepened from the Dakota at 2,965 feet to 3,375 feet and swabbed 900 bbls. first 24 hours from the Sundance at 3,320-74 feet. The top of the Sundance formation was at 3,305 feet. It was originally completed in 1921 in the Dakota at 2,918-65 feet for 750 bbls. initial production. It is deepening two more old wells.

General Pet. Corp. No. 1 Union Pacific, SW NW sec. 5-19n-83w. R.U.R.; drlg. W.W. at 160 ft.
Ohio Oil Co. and California Co. No. 2 Union Pacific, C NE NE sec. 35-21n-79w. Spud. Mar. 21; drlg. 506 ft.
Ohio Oil Co. and California Co. No. 3 Union Pacific, C NE SE sec. 23-21n-79w. Rig up; M.I. rotary.
Ohio Oil Co. No. 1 State, SE SE NE sec. 34-20n-78w. Drlg. 3,050 ft. in shale (cor. loc.).
Ohio Oil Co. No. 1 Dixon, NE NE SE sec. 34-20n-78w. O.W.D.D. from 2,934 ft.; R.U. (first report).
Ohio Oil Co. No. 1 State, SE SE NE sec. 34-20n-78w. Drlg. 3,075 ft. in shale.
Union Oil Co. of California and Mutual Oil Synd. No. 1 Union Pacific, 1,890 ft. from E line and 1,320 ft. from S line, sec. 1-18-78w. S.D. 4,400 ft. (cor.).

Converse County

John Ackert No. 1 Daniels, SW SW NE sec. 17-32-71. S.D. 4,004 ft.

Hot Springs County

California Exploration Co. No. 2 Government, NW SW NW sec. 4-44-96. T.D. 4,235 ft.; 6⅝-in. at 4,137 ft.; setting bridges to locate wtr.
Ohio Oil Co. No. 73 Mill Iron Cattle Co., NE SW SE sec. 19-46n-98w. Cellar.
Stanolind O. & G. Co. No. 20 State-Ridgely, SE NE SE sec. 19-46n-98w. T.D. 3,569 ft.; cmtg. to regain circulation.

Lincoln County

Senrab Oil Corp. No. 3 Government, CSL SE NW sec. 10-26n-113w. S.D. 1,020 ft.

Natrona County

Empire State Oil Co. No. 15, NW SE NE sec. 11-33n-83w. Prep. to run 8¼-in. to S.O. wtr. at 842 ft.

Niobrara County

Argo Oil Co. No. 7 Elliott, C NE NW sec. 5-35n-65w. Drlg. 1,400 ft.
Argo Oil Co. No. 6 Elliott, C SE NW sec. 5-35n-65w. Drlg. 2,400 ft.
Black Hills Ref. Co. No. 1 Mills Est., C SW NW sec. 27-36n-64w. Spudded and S.D. account of weather.
J. H. Huber Co. No. 1 Jones, NE SE NW sec. 6-25n-65w. T.D. 4,096 ft.; P.B. to 4,032 ft.; running 2-in. tubing and R.U. for pump test.
Ohio Oil Co. No. 3 Agnes Rohlff, C SE NE sec. 32-36n-65w. Drlg. 1,546 ft.
Ohio Oil Co. No. 5 Converse Sheep, C SE SW sec. 32-36n-65w. Drlg. 2,612 ft.
Ohio Oil Co. No. 3 Richards & Comstock, C NE SW sec. 32-36n-65w. Rigged.
S. & H. Dev. Co. No. 1-A Olinger, SE NE NW sec. 1-36-63. T.D. 1,674 ft.; S.O. Dakota wtr. with 4¾-in. at 1,620 ft.; fsg. for tools; 600 ft. O.I.H. from Lakota at 1,666-74 ft.

Sheridan County

Beaver Creek Oil Co. No. 1 Allison, SW SE sec. 15-55n-85w. Drlg. 3,050 ft. and carrying 4¾-in.

Uinta County

Intermountain Pet. Corp. of Utah No. 1 Union Pacific-zayes, SW NW SW sec. 24-19n-118w. Drlg. 1,575 ft.
W. D. Marshall No. 1 Government, NW SW SE sec. 12-15n-118w. S.D. 1,260 ft.

Washakie County

Ariton & Doyle No. 1 Government, SW SW SE sec. 29-48-91w. S.D. 1,115 ft.
Wyoming O. & G. Co. No. 2 Government, SW SW SW sec. 31-48-90. T.D. 1,404 ft. (cor.); fsg. for tools.

Weston County

Production in the Osage field in February was 17,031 bbls., which compares with 19,554 bbls. Decrease was due principally to cold weather. Deliveries to refiners for January and February combined totaled 27,608 bbls.

One completion was made in the shallow district in Henry Egert No. 2, SW NW section 8-46-63, in sand at 346-53 feet for 3 bbls. per day on the pump.

Conway Oil Corp. No. 1, SE SE NE sec. 7-41n-60. Fsg. for tools at 2,087 ft.

MONTANA

Big Horn County

Daniels Pet. Co. No. 1 May, C SE SE sec. 13-1s-33e. T.D. 3,000 ft.; fsg. tools.

Fallon County

Montana-Dakota Utilities Co. No. 1, NE NW sec. 17-3n-62e. T.D. 6,349 ft.; sidetrkg. bit.

Fergus County

Minnesota Co. No. 1 Fenholt, SE NW SW sec. 24-21n-18e. (cor.). Drlg. 310 ft.
Judith Operation Co. No. 1 Government, C SW SW sec. 26-22n-17e. S.D. 1,052 ft. (cor.).
Kalispel-Kevin Oil Co. No. 2 Emmons, C SW SE sec. 20-21-18e. Drlg. 576 ft.

Glacier County

Two completions, both inside locations, and five new operations were reported in the Cut Bank field. Cobb-Reagan No. 1 Jackson, NE NW NW section 5-32-5w, in the southern part of the pool, swabbed 130 bbls. first 16 hours at a total depth of 2,785 feet. It topped the Cut Bank at 2,700 feet, had a show of oil at 2,715 feet and found the pay at 2,775-83 feet. Elevation is 3,599 feet.

E. C. Tarrant No. 5 Getty, NW NW SW section 2-34-6w, was completed at 2,920 feet and pumped 94 bbls. first 24 hours and 86 bbls. in the second period from the pay at 2,890-2,908 feet.

Anderson et al No. 3 Anderson, NE SW NW sec. 26-35n-6w. Rig (first report).
A. B. Cobb No. 5 Walberger, C NE NE sec. 25-35n-6w. Rig.
Cobb-Pardee No. 1 Stufft, C NE NW sec. 25-36n-6w. Drlg. 900 ft.
A. E. Crumley No. 1 Tribal, C SW SE sec. 31-33n-5w. Rigging.
Dakota-Montana Oil Co. No. 4 Winkler, SW NE NW sec. 26-35n-6w. Rig (first report).
Gardner et al No. 1 Cole, C NE SW sec. 2-32n-6w. Drlg. 860 ft.
Goodman Oil Co. No. 1 Tribal, SW NW SW sec. 25-33n-6w. Rigging.
B. V. Hole No. 1 Tribal, C NW SW sec. 26-33n-6w. Cellar (first report).
L. P. Jackson et al No. 1 Tribal, NW SE NW sec. 23-34n-7w. Ready to spud.
R. C. Jeffries No. 4 Lukens, NE NE NE sec. 12-33n-6w. S.D. 2,610 ft.
Kincheloe-Hanlon No. 1 State, SE SE SE sec. 25-32n-6w. Cmtd. 8¼-in. at 2,802 ft.; show oil at 2,805 ft.
Jack Marshall No. 2 Tribal, 140 ft. S of N line and 200 ft. E of W line, Lot 7, sec. 7-32-5w. T.D. 2,915 ft.; W.O. 3-in. D.P.
Montana Power Gas Co. No. 1 Eisler, 900 ft. WE and 1,980 ft. NS sec. 5-33n-5w. Cole. at 425 ft.; set 10-in. at 470 ft.
Montana Power Gas Co. No. 2 Coburn, C NW NE sec. 8-33n-5w. Drlg. 1,300 ft.
Nadeau Bros. No. 1 Tribal, C Lot 4, sec. 6-32n-5w. T.D. 2,845 ft.; drlg. by tools.
Par Oil Co. No. 6 Haines, NE SW NE sec. 2-34n-6w. Set 10-in. at 560 ft.; W.O.C.
Santa Rita O. & G. Co. No. 6 Tribal, 660 ft. S of C W line, sec. 16-35n-6w. T.D. 2,911 ft.; M.I. spudder to drill in.
Santa Rita O. & G. Co. No. 7 Tribal, 1,980 ft. S of N line, 1,320 ft. W of E line, sec. 16-35n-6w. Spudding (first report).
Santa Rita O. & G. Co. No. 1 Shearon, 660 ft. S of N line and 349 ft. W of E line, sec. 34-36n-6w. Running 7-in.; Sunburst at 3,054-65 ft. dry; top Cut Bank 3,081 ft.; good oil show at 3,088-92 ft.
Santa Rita O. & G. Co. No. 1 Corey, NE NW SE sec. 5-32n-5w. S.D. 2,959 ft. for spudder.
Santa Rita O. & G. Co. No. 1 Barrington, SE SW NW sec. 24-33n-6w. Bldg. rig.
Neil Spencer No. 2 Tweedy, 925 ft. NS line, 1,980 ft. WE line, sec. 25-33n-6w. Rigging.
R. C. Tarrant No. 6 Britton, C SE SW sec. 12-34n-6w. S.D.; rig.
R. C. Tarrant No. 2 State, C NE SE sec. 26-34n-6w. Drlg. 2,485 ft.
R. C. Tarrant No. 2 State, C NE SE sec. 36-34n-6w. Drlg. 2,455 ft.
R. C. Tarrant No. 7 Haglund, Jr., C SW SW sec. 13-34n-6w. Drlg. 625 ft.; 10-in. set at 550 ft.
R. C. Tarrant No. 2 Reikhoff, SE NE SE sec. 3-34n-6w. Loc. (first report).
Texas Co. No. 5 fee, 660 ft. N of SW cor. sec. 15-35n-6w. T.D. 2,820 ft.; cmtg. cave.
Texas Co. No. 1 Marie Jones, C NW SW sec. 6-33n-5w. Cmtd. 10¾-in. at 565 ft.
Texas Co. No. 1 Walker, C NE NE sec. 2-35n-6w. Drlg. 2,805 ft.
Texas Co. No. 1-B Tribal, Lot 4, 1,300 ft. from W line, 200 ft. from S line, sec. 2-33n-5w. R.U.R.
Texas Co. No. 1-A Tribal, C SW NE sec. 36-33n-6w. Loc. (first report).
Wilkerson et al No. 1 Tribal, SW SE NE sec. 31-33n-5w. Cmtd. 7-in. at 2,753 ft.; shbw oil 2,760 ft.
Whetstone et al No. 1 Tribal, C SE NW sec. 36-33n-6w. Spudding.

Petroleum County

West Dome Oil Co. No. 1, SW SE NE sec. 9-15n-29e. Drlg. 851 ft.

Judith Basin County

Fletcher E. Hunt No. 3, N WSE NE sec. 30-14n-15w. Drlg. 400 ft.

Pondera County

Wm. M. Fulton No. 1 Price, SW NE NE sec. 18-27-4w. Drlg. 1,918 ft.
Norden Corp., Ltd., No. 1 Hollan, NW SW NW sec. 12-28-6w. Resuming at 583 ft.
Warren Hastings No. 2 Erickson, NW SW NW sec. 10-27n-4w. Rigging (first report).
Texas Co. No. 1 Valier Unit No. 1, C NW SE sec. 32-31n-5w. Skidding rig to loc. (first report).

Toole County

Most of the drilling wells in the Kevin-Sunburst field remain shut down. There was one completion and one first report. Huso Brothers No. 3 Government, SW NE SE section 14-35-3w, was completed at 1,690 feet for 8 bbls. a day on the pump. Top of the Ellis-Madison was at 1,548 feet.

A. E. Crumley No. 8 Shaw, SE NW SE sec. 35-36n-2w. Drlg. 585 ft.
Agen & Goedderts No. 1, C SE NE sec. 16-35n-3w. Loc. (first report).

UTAH

Grand County

Columbia Crude Co. No. 1 Rath, SW SE sec. 12-25n-20e. Prep. to resume at 148 ft. under new management.
Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 32-22n-22e. Drlg. 3,427 ft.
Glenn Ruby et al No. 1 State, NE SE SE sec. 34-31s-16e. Drlg. 745 ft. (cor.); carbon dioxide gas at 660 ft.; 500 pds. pr.; cleaned; H.F.W.

Washington County

Arrowhead Pet. Corp. No. 1-A, SE SW NE sec. 1-42s-15w. Drlg. 2,418 ft.; hole of water, 6¼-in. at 1,409 ft.

P. G. Boardman, of the Associated Oil Company, Los Angeles, Calif., has been appointed superintendent of the telephone, telegraph and teletype department in charge of all operations including construction.

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East Texas Fields

(Continued from Page 62)

Gregg County, formerly abandoned as dry, was recompleted and made 30 bbls. per hour from sand logged at 3,590 feet. Total depth is 3,604 feet. This is the second well drilled by rotary and abandoned when small lenses of sand were missed, brought in as a producer when cable tools were used in recomplete. For this reason cable tools are being used almost entirely in drilling edge wells in the field.

Kaufman County Test

A Paluxy sand test is scheduled to spud before June 15, just south of the Hunt County line in northern Kaufman County on a 2,800-acre block assembled by Colby and Lester of Okmulgee, Okla., in an area in which four Woodbine sand tests and one Paluxy test were drilled several years ago. Several major companies are purchasing protection acreage in the area. The Gulf Production Co., now Gulf Oil Corp., drilled the Paluxy sand test, which logged that sand, but proved a nonproducer.

Collin County Proposal

Port Bolivar Oil & Refining Co., which has been drilling in Collin and Grayson County during the past couple of years, and which has headquarters at Van Alystine, Tex., is planning to drill a deep test, possibly to 5,500 feet, just east of Anna in the extreme northern part of Collin County. A geophysical structure has been worked out in the area with the fault line running west of Anna with the upthrow side lying on the southeast, the fault running in a northeast-southeast direction.

The company holds between 10,000 and 12,000 acres in the block around the town. A seismograph high has recently been shot on the same block, the town of Anna nearly centering same.

EAST TEXAS COMPLETIONS

Completions in East Texas and East Central Texas with their top of sand and total depth records and initial production were as follows:

Anderson County

Tide Water & Seaboard Oil Co. No. 1 Davey, total depth 4,088 feet, 108 bbls. in 24 hours through one-eighth inch choke; No. 14 Edens, total depth 4,047 feet, 145 bbls. in 24 hours through one-eighth inch choke. Turman and Hill and Hill No. 2 Tubbs, total depth 4,082 feet, 149 bbls. in 24 hours through one-eighth inch choke.

Navarro County

Thompson and Sitton No. 3 Pugh, total depth 1,716 feet, plugged back to 1,100 feet, drilled out to 1,600 feet, 7 bbls. per day on pump.

Smith County

Beard and others No. 1 Holly, dry and abandoned 4,418 feet, top hard Georgeton lime 4,403 feet, elevation 478 feet, 2 miles south of Chapel Hill. Thompson and Colby No. 1 Walsh, dry and abandoned 1,171 feet; 6½ miles northeast of Tyler.

East Texas Field Completions

Gregg County

Amerada Petroleum Co. No. 3 Kinsell, 3,606-3,632 feet, 14 bbls. in 30 minutes. Arkansas Fuel Oil Co. No. 12 Calvin, 3,564-3,589 feet, 23 bbls. in 15 minutes; No. 19-C Lathrop, 3,589-3,614 feet, 19 bbls. in 15 minutes. Atlantic Oil Producing Co. No. 16 Wilson, 3,553-3,613 feet, 120 bbls. per hour. Humble Oil & Refining Co. No. 23 Armstrong, 3,553-3,580 feet, 65 bbls. per hour. L. G. & S. Oil Co. No. 10 McQueen, 3,590-3,604 feet, 30 bbls. per hour. Magnolia Petroleum Co. No. 11 Zeigler, formerly abandoned 3,590-3,604 feet, 30 bbls. per hour.

Sun Oil Co. No. 8-A Tooke, 3,573-3,647 feet, 40 bbls. per hour through 1-inch choke. Arkansas Fuel Oil Co. No. 34 Hughey-Ross, 3,516-3,542 feet, 14 bbls. in 15 minutes. Sklar Oil Co. No. 2-A Crews, 3,735-3,706 feet, 40 bbls. per hour. Alladin Oil Co. No. 3 Dansby, 3,720-3,721 feet, 15 bbls. per hour on pump. Callender No. 10 Walker, 3,571-3,573 feet, 10 bbls. in 20 minutes. Constantine Refining Co. No. 5 Elder, 3,487-3,515 feet, 4 bbls. per hour on pump; No. 1 Utzman, 3,494-3,514 feet, 4 bbls. per hour on pump.

Delta Drilling Co. No. 2 Alexander, 3,496-3,547 feet, 10 bbls. per hour on pump. Gulf Oil Corp. No. 90 Hilburn, 3,516-3,544 feet, 20 bbls. in 25 minutes. Humble Oil & Refining Co. No. 18 Knowles, 3,564-3,636 feet, 35 bbls. per hour; No. 15 Thomas, 3,529-3,604 feet, 40 bbls. per hour. Kilgore Refining Co. No. 15 I.&G.N. Ry. Co., 3,549-3,555 feet, 145 bbls. per hour. Midfield Oil & Gas Co. No. 2-B Benson, 3,732-3,733 feet, 20 bbls. in 30 minutes. Magnolia Petroleum Co. No. 15 Griffin, 3,554-3,615 feet, 15 bbls. in 30 minutes. Midway Petroleum Co. No. 7 Lawther, 3,540-3,595 feet, 55 bbls. per hour. Rozelle Oil Corp. No. 8 Still, 3,495-3,515 feet, 20 bbls. per day (estimated).

Shell Petroleum Corp. No. 35 Elder, 3,531-3,551 feet, 40 bbls. in 30 minutes. Sinclair Prairie Oil Co. No. 22 Andrews, 3,432-3,490 feet, 18 bbls. in 15 minutes; No. 11-B King, 3,449-3,490 feet, 17 bbls. in 15 minutes; No. 20 Lawther, 3,540-3,552 feet, 12 bbls. per hour on pump. Sun Oil Co. No. 19 Morton, 3,423-3,427 feet, 60 bbls. per hour. The Texas Co. No. 14 Walker, 3,596-3,597 feet, 45 bbls. in 21 minutes. Tide Water Oil Co. No. 30 Bivens, 3,632-3,640 feet, 60 bbls. per hour.

Rusk County

Beren and others No. 6 Jones, 3,597-3,609 feet, 6 bbls. per hour on pump. American Liberty Oil Co. No. 5-D Christian, 3,656-3,698 feet, 7 bbls. per hour on pump. Humble Oil & Refining Co. No. 169 Crim, 3,572-3,594 feet, 108 bbls. per hour. Hurtle Oil Co. No. 11-B Sexton, 3,508-3,585 feet, 20 bbls. per hour; No. 6 Sexton, 3,608-3,640 feet, 20 bbls. per hour; No. 13 Sexton, 3,595-3,632 feet, 20 bbls. per hour; No. 12-B Williams, 3,604-3,655 feet, 15 bbls. per hour.

Kirby Petroleum Co. No. 14 Reddic, 3,640-3,747 feet, 40 bbls. per hour. Magnolia Petroleum Co. No. 1 Mayfield, 3,632-3,648 feet, 20 bbls. in two hours on pump. Atlantic Oil Producing Co. No. 40 Kenney, 3,550-3,640 feet, 40 bbls. per hour. Campbell No. 2 Wooley, 3,604-3,645 feet, 100 bbls. per day on pump. Chalk and Slaughter No. 4-B Frederick, 3,550-3,600 feet, 30 bbls. per hour on pump. DeArman and others No. 1 Coleman, 3,623-3,732 feet, dry and abandoned. G.B.R. Oil Co. No. 5 Thrash, 3,755-3,801 feet, 55 bbls. per hour. Harrison No. 2 Bradford, 3,576-3,606 feet, 20 bbls. in five hours on pump.

Humble Oil & Refining Co. No. 43-A Plowman, 3,648-3,676 feet, 63 bbls. per hour; No. 52 Price, 3,679-3,725 feet, 67 bbls. per hour; No. 52-A Silvey, 3,655-3,738 feet, 20 bbls. in 25 minutes. Mabee and others No. 7-B Maxwell, 3,581-3,671 feet, 30 bbls. in three hours on pump. Marathon Oil Co. No. 37 Moore, 3,649-3,739 feet, 40 bbls. per hour. Perot Oil Co. No. 1 Dickerson, 3,543-3,561 feet, 30 bbls. day on pump. Retsal Drilling Co. No. 25 Maxwell, 3,593-3,665 feet, 30 bbls. in three hours on pump; No. 23 Maxwell, 3,572-3,645 feet, 37 bbls. in seven hours on pump. Tide Water Oil Co. No. 9 Irion, 3,670-3,700 feet, 15 bbls. in 15 minutes.

Cherokee County

Texas-Canadian Oil Co. No. 1-B Kelley, 3,695-3,696 feet, 60 bbls. per hour.

Smith County

Sun Oil Co. No. 25 Henson, 3,687-3,692 feet, 54 bbls. per hour.

Upshur County

Bell and others No. 1 Callahan, 3,656-3,688 feet, 128 bbls. in five hours on pump. Danciger Oil & Refining Co. No. 8 Stinchcomb, 3,755-3,763 feet, 70 bbls. per hour. Humble Oil & Refining Co. No. 19 Johnson, 3,682-3,699 feet, 63 bbls. per hour; No. 8 Mattox, 3,675-3,680 feet, 37 bbls. per hour. Stanolind and others No. 9-B Williams, 3,670-3,680 feet, 20 bbls. in 28 minutes. Sun Oil Co. No. 8 O'Byrne, 3,713-3,718 feet, 20 bbls. in 45 minutes.

Oklahoma Fields

(Continued from Page 52)

section 35-18-8, location; his No. 1 Smith, NW cor. section 1-17-8, location; his No. 5 Eufaula, C NE NW section 5-18-11, location; E. J. Koury and others No. 1 Bruce, SW cor. section 15-17-9, machine; C. L. Jordan, No. 1-A Harjo, NW SE SW section 13-17-8, location; Skelly Oil Co. No. 1 Carr, NW SW SE section 30-15-9, an old well deepening, Wilcox sand test.

Okmulgee County

One small producer and one failure was Okmulgee County's completion for the week. Downing No. 6-A Colbert, C S half NW section 1-15-14, produced 20 bbls. of oil in 24 hours from sand at 1,330 to 1,352 feet. Strozier No. 1 Steil, C SW NE section 20-16-11, was dry and abandoned at 2,191 feet.

New work in Okmulgee County: Strozier No. 1-A Caldson, C SW NE section 21-16-11, rigging up; Ladd No. 1-A Town, CEL SW NW section 27-15-4, spudding; Aggis Drilling Co. No. 1-A Osborn, NE NE NW section 21-15-14, drilling at 930 feet.

Muskogee County

No tests were completed and only one new operation was reported in Muskogee County. Joe Paul and others No. 1 Turner, NE NE SE section 14-13-16, was spudding.

Tulsa County

Bovaird No. 20 Coser, CWL SW NE section 3-17-12, was completed as a Wilcox sand well, producing 15 bbls. of oil in 24 hours. Sand was had at 2,172-2,201 feet. Mechling No. 1 Riverbed, SE SE NE section 9-19-10, was abandoned after getting Bartlesville sand at 1,806-39 feet and plugging back to 1,836 feet without results. No new work was reported in Tulsa County.

Wagoner County

Only completion in Wagoner County was the Green No. 4 Tiger, CSL NW NW section 11-17-15, dry and abandoned at 1,185 feet, total depth.

Drilling Contractors

(Continued from Page 53)

nings for Shell Petroleum Corp. and one in Jefferson County for Atlantic Oil & Producing Co.

Glenn McCarthy is moving in a rig for an interesting wildcat in the Winnie area in northeastern Chambers County. It is No. 1 Pitt, located north of the town of Winnie in the Jose M. Duran Survey. At the Amelia field his No. 1 Longe is drilling below 1,000 feet, while in the Anahuac field Humble Oil & Refining Co. No. 8 White is bottomed in oil sand at 7,095 feet, with 7-inch casing cemented at 7,068 feet.

Al Buchanan, of San Antonio, completed two producers in the Plymouth field, San Patricio County, for the Plymouth Oil Co. and is drilling on four tests in that field for the same company. In the same county a wildcat being drilled for Benedum & Trees Oil Co. is testing sand at 5,696-5,710 feet on the Welder ranch.

Buchanan's other activities are in Duval County, where casing has been set on the sand in two Seven Sisters wells for Humble Oil & Refining Co. and Shell Petroleum Corp., and one Loma Novia well, Texas Co. No. 21 Wendt. In Seven Sisters, Mid-Continent Petroleum Corp. No. 7 Serna is being swabbed in and Buchanan and Blanco Oil Co. No. 11 Welder is flowing in the pits and cleaning. Work is getting under way on the Stanolind Oil & Gas Co. No. 1 Farmers Life, a wildcat southwest of the Labbe field in Duval County.

Trinity Drillers, Inc., of San Antonio has a fishing job on the Feltner No. 1 Carter wildcat in Live Oak County. In Duval County, another wildcat, Howard Petroleum Co. No. 1 Ruiz is drilling around 3,000 feet. Trinity Drillers will move shortly on a wildcat test to be drilled on the Funchez ranch in Zapata County.

Canadian Gas Imports

OTTAWA, Ontario, Mar. 28.—Imports of natural gasoline lighter than .6690 specific gravity into Canada in December totaled 1,936,217 gallons valued at $137,768 compared with 4,907,870 gallons valued at $304,672 in November. All were from the United States, while in November 2,557,230 gallons valued at $168,063 came from Peru.

Imports of gasoline lighter than .8235 specific gravity in December amounted to 1,214,898 gallons valued at $109,335 compared with 1,400,119 gallons valued at $118,381. Of the December imports 450 gallons valued at $180 came from the United Kingdom and the rest from the United States; all the November imports came from the United States.

Exports of gasoline and naphtha in December totaled 20,475 gallons valued at $2,987 against 598,336 gallons valued at $92,717 in November.

Alberta Gas Conference

EDMONTON, Alberta, Mar. 28.—At the instance of the Alberta government, a conference was held with representatives of all major distributing companies with a view to securing a reduced gasoline price. Suggestions were made by the company representatives who are reporting to their companies. The possibility is that failing an agreement legislation will be adopted along the lines of that in Nova Scotia to control and restrict retail outlets for gasoline and petroleum products.

WILDCAT OPERATIONS

OKLAHOMA WILDCATS

Week Ending March 28

NORTHERN OKLAHOMA

Alfalfa County

Tex-O-Kan. Oil Co. No. 1 Acre, C SW NE sec. 14-24-11w. Sylvan shale 7,065 ft.; Wilcox sand 7,259 ft.; cored 7,327-32 ft.; salty; P.B. 6,720 ft.; to set csg.

Beckham County

Carter Oil Co. No. 1 Davidson, C NW SW sec. 2-9-25w. T.D. 595 ft.; W.O.C.

Wood Pet. & Royalty Corp. No. 1 Blair, C NW SE sec. 32-9-26w. Drlg. 3,655 ft.

Caddo County

Denver Prod. & Ref. Co. No. 1 Sah-Can C SE SE sec. 33-10-10w. Ran whipstock to 7,900 ft.; to drill out.

H. W. Lee et al No. 1 Horton, NE cor. Sec. 9-6-3w. S.D. at 2,001 ft.

Cleveland County

Hall-Briscoe, Inc. No. 1 Fant, S.J. SW NE sec. 27-10-2w. S.D. at 7,511 ft.

Coal County

Shell Pet. Corp. No. 3 Hill, SE SE NW sec. 30-3-10. Sand 1,520 ft.; McAllister series 1,600 ft.; Atoka shale 2,380 ft.; drlg. 4,938 ft.

Comanche County

N. E. Milling No. 1 Miller, NE NE SW sec. 23-4-12w. Drlg. 827 ft.

Geo. Pace et al No. 1 Spencer, SW cor. SE sec. 21-3-10w. T.D. 4,164 ft. in Granite wash; P.B. to 1,850 ft.; re-cmtd. hole from 1,853 ft. to 1,684 ft.; moved out tools; S.D.

Garfield County

Herndon Drlg. Co. et al No. 1 Branson. SW SW SE sec. 23-24-3w. Drlg. 4,780 ft.

W. J. Sherry et al No. 1 Haken NW NW SW sec. 32-20-10w. Layton 4,820 ft.; Oswego 5,585 ft.; drlg. 5,961 ft.

Stanolind O. & G. Co. et al No. 1 Brunken SW SW NE sec. 32-23-4w. Drlg. 5,540 ft.

Garvin County

Chas. E. Carter et al No. 1 Wood, NW SW SE sec. 5-4-3.
Old T.D. 2,405 ft.; to deepen.

Suggett & McElreath No. 1 Hyre, NE NE SE sec. 23-3-1w. Ran Schlumberger 4,501 ft.; T.D. 4,620 ft.; dry and abd.

Hughes County

Brady Oil Co. No. 1 Culver, NE SE NW Sec. 28-7-9. Location.

W. P. Canavan No. 1 Meadors, SE NE SE sec. 5-8-10. Gilcrease 2,600 ft.; Wapanucka 3,050 ft.; Cromwell 3,058 ft.; sands 3,120 ft. and 3,180 ft.; slight showing of oil; T.D. 3,196 ft.; P.B. 3,168 ft.; shot; fishing.

Fitzpatrick et al No. 1 Cotton, SE SE NE sec. 15-8-8. Calvin sand 1,275 ft.; no Senora sand; T.D. 3,001 ft.; D. & A.

M. H. Halsey No. 1-A Eustep, NW NW SW sec. 11-8-9.
Wapanucka 3,428 ft.; Cromwell 3,452 ft.; T.D. 3,464 ft.; 2 bailers wtr. an hr.; P.B. and shot, 3,030-45 ft.; est. 10,000,000 ft. of gas; P.B. to 3,412 ft.; re-shot.

Phillips Pet. Co. No. 1 Eberle, NE NE SW sec. 12-5-9. Sand 2,865-85 ft.; S.O.; drlg. 3,486 ft.

Schumacher et al No. 1 Schumacher NE NW NE sec. 23-5-10. T.D. 1,782 ft.; tubing.

Sivalls et al No. 1 Montgomery, NW SW NW sec. 7-9-9. S.O. and H.F.W. 2,485-90 ft.; S.D.

Kay County

W. O. Allen and Texas Co. No. 1 Fulton, SE cor. sec. 18-27-4. Location.

Black Gold Pet. Co. No. 1 Cooley, NE NW SW sec. 25-28-4e. Sand 1,395-1,450 ft.; drlg. 1,690 ft.

Kiowa County

W. C. Adams et al No. 2-A Stone, C SE SE NE sec. 34-7-17w.
T.D. 1,193 ft.; machine moved out.

J. C. Shaffer et al No. 1 Slusher, NW SW NW sec. 35-7-17w. T.D. 1,055 ft.; est. good for 5 bbls.; P.B. to 955 ft.; acidized with no results.

Lincoln County

Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Crawford, NE NE SE Sec. 35-15-2. First Wilcox 5,110 ft.; second Wilcox 5,218 ft.; T.D. 5,243 ft.; P.B. 5,150 ft.; acidized; flowed 25 bbls. oil per day; gas 3,000,000 ft.; completed.

Logan County

R. H. Pierce No. 1 Kihega, SW cor. sec. 7-17-1. Wilcox 5,132 ft.; slight S.O. and salt 5,122-34 ft.; T.D. 5,156 ft.; D. & A.

Stanolind O. & G. Co., Amerada Pet. Corp. and Essen O. & R. Co. No. 1 Gragg, SW SW NE sec. 20-18-4w. Cored 6,063 to 6,122 ft.; 35,000,000 ft. gas per day; 12 bbls. gasoline per hour; T.D. 6,145 ft.; to test.

McClain County

Arab Pet. Corp. No. 1 Autry, NW cor. sec. 16-7-3w. T.D. 8,157 ft.; fishing.

McIntosh County

Indian Ty. Ill. Oil Co.'s No. 1 Tancred, 1,050 ft. S and 390 ft. E of C. Sec. 9-9-14. Gilcrease sand, 2,695-2,732 ft.; 20,000,000 ft. of gas; Cromwell 3,608 ft.; sand 3,730-43 ft.; N.S.; drlg. 3,745 ft.

Oklahoma Oil Corp. No. 1-A Wolf, SE SW SE sec. 35-12-17. Gas sand 800 ft.; dry sands 1,200 ft. and 1,400 ft.; set 6-in. csg. at 2,867 ft.; drlg. 3,350 ft.

Noble County

Continental Oil Co. No. 1 Pruitt, NW SE SW sec. 19-20-1w. Drlg. 2,930 ft.

Okfuskee County

Manahan & Grisso No. 1 Dalton, SE SE SE sec. 36-10-8.
Senora sand 1,723 ft.; T.D. 1,763 ft.; flowed 75 bbls. oil first hour after shot; flowed 225 bbls. in 7 hrs., and 203 bbls. in 9 hrs.; lost 4 hrs. while cleaning out.

Oklahoma County

H. R. Hollenback et al No. 1 Cooper, NW NW NE sec. 15-11-1. T.D. 1,307 ft.; S.D. for water.

Sinclair Prairie O. & G. Co. No. 1 Corbett, NE NW NE sec. 17-13-3w.
Washed clean and acidized; flowed 17½ bbls. "gasoline" and 3,000,000 ft. of gas in 24 hrs.; T.D. 6,547 ft.

Osage County

Champlin Ref. Co. No. 1 Osage, SW SW NE sec. 35-25-6. Cellar.

Elfred Beck No. 1 Osage, SE SE NE sec. 16-23-7. Drlg. 275 ft.

Midco Oil Corp. et al No. 1 Osage, NW NW SE sec. 11-23-6. Loc.

Payne County

Denver Producing & Ref. Co. et al No. 1 Pratt, NW cor. sec. 20-18-3. Rig.

Pittsburg County

Vaughn Prod. Co. et al No. 1 Chunn, 990 ft. N and 614 ft. W of C sec. 29-4-14.
S.D. 1,170 ft.; recovered all drill pipe; tools moved out.

Pontotoc County

Mid-Texas Pet. Co. No. 1 Whitney, SW SW SE sec. 30-5-4. T.D. 1,946 ft.; swbd. 100 bbls. oil in 12 hrs.; preparing to pump.

Sandback et al No. 1 Sands, NE NE NE sec. 20-3-5. Drlg. 232 ft.

Pottawatomie County

Gulf Oil Corp. No. 1 Bois-Clark, SW SE SE sec. 21-6-4. Drlg. 1,480 ft.

Ross Oil Co. et al No. 1 Sparkman, SE NE sec. 33-8n-4e.
C.O. 3,915 ft.; shot at 3,871-90 ft.; swbd. 250 bbls. in 24 hrs.; acidized.

J. L. Shaw No. 1 Illinois Life, NW SE NW sec. 1-4-5. Drlg. 1,590 ft.

Seminole County

Amerada Pet. Corp. et al No. 1 Community, NE NE SW sec. 2-10-5. Drlg. 3,570 ft.

Imperial Drlg. Co. No. 1 Aldridge, SW NE NW sec. 32-9-8. R.U.R.

Sinclair Prairie Oil Co et al No. 1 Harrison, NE NE NW sec. 17-8-8. R.U.R.

Feimlee & Nichaelson No. 1 Belford, SE NW NE sec. 15-9-8. Sd. 1,460-1,505 ft.; S.O.&G.; S.D. 1,680 ft.

Wynona-Jarvis-Holm No. 1 Horton, NE SW NE sec. 18-7-8. Gilcrease 2,995 ft.; Cromwell 3,167 ft.; Viola 4,138 ft.; Dense 4,178 ft.; drlg. 4,200 ft.

Washita County

L. P. McWhirter's No. 1 fee, SW cor. Sec. 34-8n-19w. S.D. 1,380 ft.

SOUTHERN OKLAHOMA

Atoka County

Phelps & Coats et al No. 1 Fidelity Life Ins. Co., SE SW NW sec. 23-1s-12. T.D. 503 ft.; S.D. for csg.

Vierson et al's No. 1 Williams NE SW NW sec. 34-2s-10. Produced 100,000 ft. of gas at 4,100-15 ft.; drlg. 4,610 ft.

Bryan County

Wayne King No. 1 Kimbell, C E½ NE NW sec. 36-9s-9e. Sand 843-94 ft.; T.D. 896 ft.; flowing water; D. & A.

Carter County

Carter Oil Co. No. 1 Carter-Williams, SW NE SW sec. 27-2s-3w. T.D. 8,088 ft.; flowed 10,000 bbls. of oil in 24 hrs.; T.D. 8,030 ft.; set 7-in. csg.; waiting.

Carter Oil Co. et al No. 1 Leon Voorhees, C SE SW sec. 34-5s-2w. T.D. 609 ft.; W.O.C.

Southern States Oil Dev. Co. No. 1 Moore, NE SE NW sec. 30-4s-1w. S.D. 1,155 ft.

Texas Co. No. 1 Cathey, SE NE NE sec. 6-5s-1w. T.D. 4,187 ft.; pumped 45 bbls. oil last 24 hrs.

Cotton County

Grace & Woods No. 1 Henderson, NE SE SW sec. 27-4s-11w. Drlg. 1,388 ft.

Harmon County

Lloalko Trust, Ltd. No. 1 Crosnoe, SE SE SW sec. 14-3n-25w. M.I.T.

Jackson County

C. P. Burnham No. 1 Oliver, NW NW SE sec. 26-1-20w. Drlg. 1,110 ft.

A. H. Jackman No. 1 fee, SW SW SW sec. 27-1s-24w. Drlg. 2,490 ft.

Universal Oil Co. No. 1 R. W. Briscoe NW SW NE sec. 36-1s-20w. S.D. 1,550 ft.

Jefferson County

A. T. Campbell No. 1 Trout, SE NE NE sec. 6-5s-7w. Sd. 1,525-57 ft.; T.D. 1,695 ft.; S.D. for pipe.

L. C. Hydrick No. 1 Peoples National Bank, SW SW SW sec. 26-6s-5w. Loc.

Geo. Pace No. 1 Gardner, SW cor. Sec. 23-5s-5w. T.D. 2,532 ft.; S.D.O.

Sinclair Prairie Oil Co. No. 1 M. H. Barrett, NW cor. sec. 31-5s-6w. Top Arbuckle lime 3,668 ft.; T.D. 4,355 ft.; D. & A.

Johnston County

Equitable O. & G. Co. No. 1 Belisey, NE SW sec. 12-2s-4e.
Arbuckle lime 1,552 ft.; drlg. 1,938 ft. in lime.

Magnolia Pet. Co. No. 1 Welch, NE cor. sec. 12-2s-7. R.U.S.T.

Moore & Wirick No. 1 Westheimer & Daube, SE NW NE sec. 19-3s-4e.
T.D. 1,925 ft.; R.U.R.

Le Flore County

McCraw et al No. 1 Tidwell, C NW SE sec. 17-3n-22.
T.D. 1,555 ft.; S.D.

Love County

Amerada Pet. Corp.'s No. 1-A Westheimer & Daube, SW SE SW sec. 27-6s-2e. T.D. 6,797 ft.; drill pipe stuck 6,650 ft.; circulating.

J. H. Russell et al No. 1 Scott, SW SE SW sec. 29-8s-2e. Drlg. 4,770 ft. in shale.

Sinclair Prairie Oil Co. No. 1 Stuckey, SE SE SW sec. 26-6s-2w. T.D. 6,914 ft.; sd. 6,890-6,909 ft.; hole full of oil; made seceral flows; swabbing.

Marshall County

Norman Smith No. 1 Chestnut, NE cor. sec. 22-8s-5e.
T.D. 390 ft.; S.D. for csg.

Pushmataha County

C. W. Whitehead et al No. 1 Misser, SE SW SW sec. 35-3s-18e. T.A.; T.D. 2,560 ft.

Stephens County

W. G. Endicott et al No. 1 McFatridge, NW NW SW sec. 11-3s-9w. T.D. 830 ft.; S.D. for csg.

Clyde Rhodes et al No. 1-A Doak, SW SW SW sec. 1-1s-5w. Drlg. 1,803 ft.

Tillman County

Gulf Oil Corp. No. 1 Wearmouth, SE NW SE sec. 31-1s-18w. Set 7-in. csg. 3,271 ft.; Drlg. 3,951 ft. in lime.

D. S. Smith No. 1-A Hammill, NE NE NW NW sec. 6-5s-15w. Drlg. 495 ft.

KANSAS WILDCATS

Week Ending March 28

(Descriptions are East unless marked otherwise)

Barton County

Arch E. Merriam No. 1 Soeken, SW SW SE sec. 21-17-11w. C.O. 350 ft.

Buchanan & Alexander No. 1 Langfeld, NE NE SW sec. 14-20-11w. S.D. 2,270 ft.

Davison et al No. 1 Birzer, SW SE SW sec. 22-17-12w. M.I.M.

Hilligoss et al No. 1 Schmidt, NE cor. sec. 27-19-11w. Drlg. 2,960 ft.

George W. Hinkle No. 1 Smith, SW NW NW sec. 1-17-11w. U.R. 10-in. csg. 2,165 ft.

Morgan & Flynn et al No. 1 Zimmer, SE SE SW sec. 20-19-14w. Drlg. 2,695 ft.

Murphy & Morgan No. 1 Robinson, NE NE SW sec. 21-16-14w. Drlg. 2,505 ft.

National Ref. Co. No. 1 McLean, SW SW SE sec. 25-17-11w.
Location.

Roy Ramsey et al No. 1 Hunt, NW cor. sec. 10-18-11w. Drlg. 2,260 ft.

Schermerhorn Oil Co. No. 1 Hunter, NE cor. sec. 29-18-15w. Spudded.

Simpson & Noble and Atlantic Oil Producing Co. No. 1 Hiss, C NW NE sec. 31-20-13w. Set 12-in. 798 ft.

Torry & Feaster No. 1 Feist, NE NE SE sec. 29-18-11w. Siliceous lime 3,430-32½ ft.; T.D.; potential; pumped 346 bbls. oil in 18½ hrs.

Wakefield & Johnson No. 1 Bumm, SW SW NE sec. 22-19-12w. Fshg. 135 ft.

Key to Abbreviations Used in Drilling Reports

Abd., abandoned.
Bldg., building.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
Br. sh., brown shale.
B.S., basic sediment.
C.P., casing pressure.
Cd. or Crd., cored.
C.D., corrected depth.
Cg., coring.
C.L., center line.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg. or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., old well drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging back (or plugged) back.
P.B.P., pulling big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., put ing on pump.
P.P., pulled pipe.
Rmg., reaming.
Redrlg., redrilling.
Rng., running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.R.T., rigging up rotary tools.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sdtr. or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.L.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardizing (also standing).
S.W., salt water .
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T.P., tubing pressure.
Tr., tract.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C. or W.O.S.C., waiting on cement to set.
W.P., working pressure.
W.S.O., water shutoff.
W.S.O.O.K., water shutoff O.K.
W.S.O.N.G., water shutoff no good.
W.S.R. or W.O.S.R., wait on standard rig.
Wtr., water.

Cowley County

Craft et al No. 1 Taylor, NE SE NW sec. 32-32-3. Rig.

Craft et al No. 1 Whitson, NE NE NE sec. 29-33-4. Spudded and S.D.

Mead Bros. et al No. 1 Orr, SE SE SW sec. 23-31-4. U.R. 10-in. 1,745 ft.

D. D. Mickleson et al No. 1 Wallace, SW SE SE sec. 10-33-4. Spudded.

A. D. Morton et al No. 1 Roger, SE SE NE sec. 1-31-4. Spudded and S.D.

Penwest Oil Co. No. 1 Clover, NE SE SE sec. 8-31-7. 18,000,000 ft. gas 1,430-60 ft.; Siliceous 3,177 ft.; T.D. 3,183 ft.; showing water; P.B. 3,160 ft.

Roth & Faurot No. 1 Guthrie, NW cor. Lot 14, sec. 30-32-3. Drlg. 2,815 ft.

A. M. Scroggin No. 1 Brady Est., NE NE SE sec. 30-31-3. Rig.

R. B. Shawver et al No. 1 Wilson, S½ SE NE sec. 11-30-4. Set 6-in. csg. 2,428 ft.

Shawver & Wilt No. 1 Baruth, SW NW NE sec. 8-34-3. Old well deepening from 1,893 ft.; sand 3,281 ft.; T.D. 3,303 ft.; est. 400 bbls. oil per day.

Earl Wakefield No. 1 Wilson, NW cor. sec. 4-32-3. Set 8-in. 2,169 ft.; C.O.

Ellis County

Jones Bros. & Carpenter et al No. 1 Solomon, SE SE SW sec. 28-11-19w. Set 12-in. pipe, 535 ft.

Bridgeport Machine Co. et al No. 1 Madden Est., NE NW NW sec. 26-15-18w. Rig.

Branson & Ewers-Simpson No. 1 Gross, NE NE SW sec. 29-14-17w. Set 15-in. csg. 355 ft.

Lario Oil & Gas et al No. 1 Walter, SE NE SW sec. 2-12-18w. U.R. 1,317 ft.

Tom Palmer No. 1 Schoenthaler, NE NE NW sec. 31-13-19w. Bldg. rig.

Parrish & Denman No. 1 Walter, SE SW SE sec. 14-13-17w. M.I.M.

Twin Drlg. Co. No. 1 Reidel, SW SW NE sec. 27-12-16w. Drlg. 2,965 ft.

Ellsworth County

Empire O. & R. Co. et al No. 1 Kroesch, NW NW SE sec. 33-17-9w. Fshg. 460 ft.

Skiles et al No. 1 Kafka, NE NE SW sec. 15-17-8w. Drlg. 2,320 ft.

Greenwood County

Hale & Reese No. 1 Needles, NE SE NW sec. 12-25-10. S.D. 285 ft.

Harper County

Marathon Oil Co. No. 1 Zellers, C SW NW sec. 17-35-8w. Wilcox sand 5,320 ft.; showing oil and gas, salty taste; drlg. 5,362 ft.

Harvey County

Empire O. & R. Co. et al No. 1 Webster, SE SE SW sec. 8-24-2w. Drlg. 2,867 ft.

Harburney Oil Co. No. 1 Schrag, NW NW SE sec. 24-22-3w. Set 10-in. 2,255 ft.

Western Kansas O. & R. Co. No. 1 Warkentin, C SW SW sec. 1-23-2w. Drlg. 2,560 ft.

Haskell County

Heimerich & Payne et al No. 1 Larson, C SE sec. 28-28-33w. Rig.

Kuhn Brothers et al No. 1 Nilson, SW SW SE sec. 21-28-32w. R.U.R.

Kearny County

L. F. Meyers et al No. 1 Beaty, C NW sec. 29-25-36w. Rotary rig.

Kingman County

D. R. Lauck et al No. 1 Skilling, C E½ E½ SW sec. 33-27-8w. O.W.D.D.; drlg. 4,583 ft.

Marion County

Milton et al No. 1 Young, NW NW SE sec. 17-21-2. Viola 2,884 ft.; S.O. 2,885-2,909 ft.; H.F.W. 2,904 ft.; U.R.

McPherson County

Empire Oil & Ref. Co. No. 1 Cunningham, SE cor. sec. 26-18-1w. M.I.M.

Ok-Tex et al No. 1 Moehlinger, SE SW SW sec. 21-21-2w. Chat 3,057 ft.; S.D. 3,203 ft.

Ness County

Continental Oil Co. No. 1 Holcomb, 1,320 ft. from N and 440 ft. from E lines of NW¼ sec. 24-11-23w. Drlg. 1,267 ft.

Continental Oil Co. No. 1 Thompson, C E½ E½ SW sec. 13-18-26w. B.R.R.

Norton County

Lario O. & G. Co. and Elwell No. 1 Kennedy, SW SW NW sec. 22-3-22w. C.O. 3,646 ft.

Reno County

Dickey Oil Co. No. 1-A Shepherd, NE NE NW sec. 22-26-9w. Drlg. 2,512 ft.

Heimerich & Payne et al No. 1 Schwaiger, SW SE NE sec. 27-26-5w. Drlg. 3,619 ft.

McPherson Drlg. Co. et al No. 1 Miller, SE SE NE sec. 23-24-5w. Chat 3,365-73 ft.; R.U.S.T.

Rice County

Joe Aylward et al No. 1 Oberle, SE SE SW sec. 19-18-10w. Drlg. 2,455 ft.

Continental Oil Co. and Empire Oil & Ref. Co. No. 1 Nickel, NE SW SW sec. 18-18-9w. Siliceous lime 3,210 ft.; T.D. 3,214 ft.; acidized; P. 883 bbls. oil in 24 hrs.

Day No. 1 Mason, NW NE NE Sec. 28-21-7w. Chat 2,388-2,400 ft.; flowed 91 bbls. in 50 minutes; shut in 2 hrs., flowed 3 bbls. oil in 10 min.; running 6-in. lnr.

Dickey Oil Co. and Continental Oil Co. No. 1 Newkirk, NE NE SW sec. 11-18-7w. Rig.

Duwe & Schneider No. 1 Wright, NE cor. sec. 36-21-7w. Drlg. 1,650 ft.

Glimac Oil Co. No. 1 Sargent, SE cor. sec. 31-18-6w. R.U.

Grattan et al No. 1 Williams, SW SW NW sec. 17-18-7w. H.F.W. 2,705-30 ft.; S.D. 2,745 ft.

Gulf Oil Corp. No. 1 Steckel, SW cor. sec. 30-19-10w. Set 10-in. csg. 150 ft.

Simpson & Noble et al No. 1 Pulliam, C S½ N½ NE sec. 35-19-8w. Location.

Skiles et al No. 1 Stout, SE cor. sec. 6-21-9w. Ponds.

Vernon Oil & Gas and Cusco Oil Co. No. 1 Boldt, NW SW NW sec. 10-19-10w. Drlg. 3,288 ft.

W. E. Witt No. 1 Hill, SE SE NW sec. 3-20-9w. Drlg. 1,620 ft.

Rooks County

Lester & Dean No. 1 Burtt, SE SE NE sec. 29-10-20w. R.U.

Murfin et al No. 1 Wasthusin, NE NE SE sec. 19-9-16w. Set 10-in. csg. 3,240 ft.

Pryor & Lockhart's No. 1 Bradley, SW SW NE sec. 31-10-16w. Oswald 3,166 ft.; Fshg. 3,502 ft.

Skaer Oil Corp. et al No. 1 Dryden, NE cor. sec. 28-10-17w. Building rig.

Rush County

Boyle & Grossman No. 1 Wilson, NE cor. sec. 32-17-19w. Drlg. 105 ft.

Ira Keith et al No. 1 Dartmouth Savings Bank, SW SW NE sec. 2-17-18w. Drlg. 3,030 ft.

National Refining Co. No. 1 Werth, NW NE NE sec. 7-16-18w. Building rig.

Pryor & Lockhart et al No. 1 Stegman, SW NW NE sec. 11-16-17w. Cellar.

Rose Spring Drlg. Co. et al No. 1 Jacoba, SW SE NW sec. 8-16-17w. Drlg. 890 ft.

Russell County

R. G. Berry et al No. 1 Cook, NE NE SE sec. 19-11-13w. Drlg. 1,600 ft.

Bridgeport Machine Co. et al No. 1 Wyckoff, SE NW NE sec. 27-11-13w. Set 6-in. pipe, 2,930 ft.

Central Pet. Co. No. 1 Furthmeyer, NE cor. sec. 23-14-15w. Moving in.

Coralena Oil Co. No. 1 Disken, SE cor. sec. 30-15-13w. Siliceous 3,252 ft.; T.D. 3,252 ft.; acidized; made potential, 1,231 bbls.; completed.

Darby Petroleum Corp. and Continental Oil Co. No. 1 Letsch, SE NE NW sec. 34-14-13w. C.O., 354 ft.

Eisenhour & Shaffer No. 1 Humes, SW SW SW sec. 6-14-12w. Set 8-in. csg. 2,105 ft.

Empire O. & R. et al No. 1 Major, SE cor. sec. 11-14-12w. Drlg. 2,850 ft.

Hartman & Blair et al No. 1 Boxberger, NW NW SW sec. 32-13-14w. Topeka lime 2,760 ft.; Oswald 3,039 ft.; T.D. 3,220 ft.; acidized; made potential, 545 bbls.; completed.

Sam Murphy et al's No. 1 Enschutz & Schaffer, SW cor. sec. 10-15-13w. Siliceous 3,311 ft.; T.D. 3,327 ft.; hole filled with oil in 12 hrs.; no test.

Charles Newbold No. 1 Krug, SE SW SE sec. 4-15-14w. Siliceous, 3,218-20 ft.; 150 ft. fluid in hole; no test.

R. C. Tarrant No. 1 Williamson, SE SE NW sec. 9-14-14w. Tarkio lime 2,515 ft.; T.D. 2,550 ft.; swbd. 5 bbls. oil per hr., and showing of wtr.; acidized with 1,000 gals.; made potential of 243 bbls. of oil.

P. G. Reynolds No. 1 Fredrickson, SE SW SE sec. 6-13-12w. Drlg. 2,620 ft.

Sedgwick County

Dickey Oil Co. No. 1 Ayers, SW SW NW sec. 12-27-2. R.U.

T. C. Johnson No. 1 Jansen, SW SW NW sec. 11-28-2. Wilcox sand 3,305 ft.; drlg. 3,340 ft. with H.F.W.

Stafford County

L. A. Farris et al No. 1 Snyder, SE SE NW sec. 2-21-11w. T.D. 3,111 ft.; 3,000,000 ft.; gas; flowed 226 bbls. oil on potential test.

Kessler & Their No. 1 Evans, NE NE NE sec. 20-21-11w. Drlg. 2,520 ft.

Lario O. & G. Co. et al No. 1 Andreas, C NW NE sec. 1-21-12w. Drlg. 2,935 ft.

Sumner County

Craft & Wilson No. 1 Nevitt, NE NW NE sec. 36-32-2e. Drlg. 935 ft.

Heimerich & Payne et al No. 1 Elwell, NW NW NE sec. 18-34-1. Drlg. 3,020 ft.

Matthews & Derrington No. 1 Berry, NW NW SE sec. 14-35-1. Drlg. 670 ft.

Morgan et al No. 1 Veail, SE SW NE sec. 27-32-2. S.D. 2,415 ft.

Wilcox O. & G. Co. et al No. 1 Hess, SE SE NW sec. 13-34-2w. Drlg. 186 ft.

D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW sec. 15-35-1w. Drlg. 3,400 ft.

Trego County

A. W. Ault et al No. 1 Loflin, NE NE SW sec. 22-13-21w. Cellar.

Central Commercial's No. 1 Wagg, NW NW SE sec. 17-13-21w. K.C. lime 3,548 ft.; bailed 30 bbls. oil per day; acidized; bailed 12 bbls. oil per day; T.D. 3,998 ft.; shot with 5 qts.

Continental Oil Co. No. 1 Holcomb, E½ E½ NW sec. 26-11-23w. Oswald lime, 3,595-3,603 ft.; standardizing.

R. B. McNeely et al No. 1 Lemke, NW NW SW sec. 7-11-22w, Rotary rig.

Worsley No. 1 Puritan, SW cor. sec. 32-13-25w. Cellar.

Woodson County

J. F. Morgan et al No. 1 Vermont Savings Bank, NE NW NE sec. 15-25-14; T.D. 1,695 ft.; D.&A.

C. L. Sheedy No. 1 Baker, SE SE NW sec. 2-26-14. Drlg. 850 ft.

Max Reynolds No. 1 Guy, NE NE SE sec. 29-26-14. Drlg. 1,400 ft.

C. L. Sheedy et al No. 1 Grand Lodge, C E½ NW SW sec. 4-25-14. Drlg. 1,522 ft.

WEST TEXAS WILDCATS

Week Ending March 28

Andrews County

Humble O. & R. Co. No. 1 J. M. Spinks, sec. 13, Blk. A-30. Drlg. 2,530 ft.

Tripplehorn No. 2 King, sec. 11, Blk. A-46. Drlg. 4,140 ft.

Brewster County

F. C. Dodson No. 1 Texas American Synd., sec. 66, Blk. 10, G.H.&S.A. Sur. S.D. 1,000 ft.

Concho County

Maverick Oil Co. No. 1 Jim Rice, sec. 18, I.N.R.R. Sur. S.D. 2,454 ft.; to P.B.

John W. Westbrook No. 1 Ledbetter, sec. 2, Sur. 1,673. S.G. 2,110 ft.; S.D. 2,165 ft.

Crane County

Big Bason Pet. Co. No. 1 Cowden. Drlg. 2,537 ft.

Clark et al No. 1 A. P. Jordan, sec. 12, Blk. B-22, P.S.L. Sur. Machine.

Gulf Oil Corp. No. 2 W. N. Waddell, 1,-980 ft. from S and W, sec. 18, Blk. B-21. Cellar.

Humble O. & R. Co. No. 2 Tubbs, 1,980 ft. from N and W, sec. 11, Blk. B-27. Loc.

Moore Bros. No. 1 Barnsley, sec. 43, Blk. 32, P.S.L. Sur. Drlg. 2,410 ft.

Rider et al No. 1 Thaxton, 200 ft. from NE and 2,570 ft. from SE, sec. 2, W. L. Wilkenson Sur. Spudded.

Sinclair Prairie Oil Co. et al No. 1 Tubbs, sec. 3, Blk. B-27. S.D. 3,164 ft.; to deepen.

Crockett County

John I. Moore No. 1 A. C. Hoover, sec. 4, Blk. FF, B.&B. Sur. Drlg. 625 ft.

Ector County

W. Dunning, Jr., No. 1 H. E. Cummins, sec. 33, Blk. 45, Twp. 1n, T.&P. Sur. Drlg. 806 ft.

Stanolind O. & G. Co. No. 1 J. E. Witcher, sec. 24, Blk. 43, Twp. 2s, T.&P. Sur. C.O. 4,230 ft.

Edwards County

Paul Texas No. 1 J. H. Stewart, sec. 2, Blk. DA, G.C.&S.F. Sur. Drlg. 3,200 ft.

Fisher County

Forest Dev. Co. No. 1 A. M. Dry, 640 ft. from S and 2,000 ft. from E, sec. 108, Blk. 3, H.&T.C. Sur. Drlg. new hole 1,-850 ft.

Gaines County

Landreth Prod. Co. No. 1 Kirk, sec. 22, A-21. T.D. 150 ft.

W. T. Walsh et al No. 1 Averitt, sec. 228, Blk. G, W.T.R.R. Sur. Elev. 3,322 ft.; fishing 4,910 ft.; more gas here.

Garza County

M. L. Richards No. 1 Post Estate, sec. 6, Blk. 5, K. Aycock Sur. T.D. 2,825 ft.; to acidize.

Glasscock County

Fleetborn Oil Corp. No. 1 F. C. Dodson, 330 ft. from S and E. sec. 12, Blk. 34, Twp. 3s. T.D. 1,735 ft.; U.R.

Howard County

Southern Oil Co. No. 1 W. P. Edwards, 330 ft. from S and W. sec. 32, Blk. 30, Twp. 1s, T.&P. Sur. R.U. machine.

Hudspeth County

Haymon Krupp Oil & Land Co. No. 1 Thaxton, sec. 34, Blk. 74, Twp. 6, T.&P. Sur. T.D. 877 ft.; set csg.

Jeff Davis County

C. M. Joiner No. 1 Jones & Coffield, sec. 8, Blk. 3, H.&T.C. Sur. Drlg. 2,890 ft.

Jones County

Bob Elmore No. 1 Coton, sec. 10, D.D.&A. lands, 3 mi. W of Avoca. Drlg. 2,025 ft.

Fain-McGaha Oil Corp. No. 1 Hayden, E. C. Martinez Sur. 195. Drlg. 852 ft.

Fondren Prod. Co. No. 1 Cox & Manley, 220 ft. from S and 1,400 ft. from E, F. Sieberman Sur. No. 5. R.U. machine.

Humphrey's No. 1 A. A. McDuff, sec. 1, Blk. 15, T.&P. Sur. S.D. 2,465 ft.

Parker No. 1 C. L. Brown, sec. 9, Blk. 2, T.&N.O. Sur. S.D. 1,010 ft.

Martin County

Woodley Pet. Co. No. 1 M. S. King, sec. 30, Blk. 35, Twp. 3s, T.&P. Sur. Fishing 2,162 ft.

Menard County

Thompson No. 1 Elsinore, 3,975 ft. from N and 1,203 ft. from E line, sec. 53, Blk. D, G.C.&S.F. Sur. Loc.

Wilcox O. & G. Co. No. 1 Merchenson, sec. 158, E.L.R.R. Sur., Abst. 1,340, 8 miles S of Menard. Drlg. 1,023 ft.

Pecos County

Cardinal Oil Co. No. 1-I White & Baker, sec. 1, Blk. 194, G.C.&S.F. Sur. Drlg. 1,575 ft.

Trans-Pecos Oil Co. No. 1 F. W. Popham, sec. 235, Blk. 11, G.H.&S.A. Sur. Drlg. 335 ft.

Trans-Tex. Oil Co. No. 1 Caldwell, sec. 37, Blk. 46, Twp. 9, T.&P. Sur. S.O. 3,905-4,000 ft.; T.D. 5,230 ft.; P.B. 4,495 ft.; to acidize.

Trans-Pecos Oil Co. No. 1 Gallaher, sec. 9, Blk. 51, T.&P. Sur. R.U. standard tools.

Presidio County

Linderman Bros. Oil Corp. No. 1 J. R. Bledsoe, sec. 15, Blk. 354, G.C.&S.F. Sur., 2½ mi. N of Presidio. T.D. 1,635 ft.; pipe frozn.

Runnels County

Golden Pet. Co. No. 1 Giesecke, 14,462 ft. from N and 6,790 ft. from E, James Hughes Sur. S.D. 118 ft.

Schleicher County

Cardinal Oil Co. et al No. 1 J. A. Whitten, sec. 35, Blk. LL, T.C.R.R. Sur. U.R. at 1,370 ft.; T.D. 1,345 ft.

Magnus Oil Co. No. 1 Judkins & Spencer, C SW¼ sec. 4, Blk. V-28. Elev. 2,209 ft.; S.G. 4,350 ft.; S.D. 4,407 ft.

Scurry County

Bristow & Cantrill No. 1 Shannon, Est., sec. 331, Blk. 97, H.&T.C. Sur. Drlg. 2,487 ft.

Coffield & Guthrie No. 1 Wade, 990 ft. from N and 330 ft. from W. sec. 115, Blk. 97, H.&T.C. Sur. T.D. 3,168 ft.; P.B. to 1,820 ft.; C.O. after shot.

Upton County

Cordova Union No. 1 fee, 672 ft. S of I.T.I.O. No. 1 Cordova Union, sec. 2, Blk. A.B. T.D. 2,176 ft.; P.B. 2,075 ft.; to acidize; C.O. after acidizing.

Greencliff Oil Corp. et al No. 1 J. H. Tippett, C NE¼ sec. 58, Blk. Y, T.C. Sur. Drlg. 3,966 ft.

O. F. M. No. 1 King Ranch, sec. 22, Blk. 35, H.&T.C. Sur. T.D. 2,161 ft.; to treat.

Ward County

Abell Brothers' No. 1 Lancaster Estate, sec. 61, Blk. 8, H.&G.N. Sur. in Pecos County, 5¼ miles down Pecos River from NW cor. of Pecos and E cor. of Reeves County. Drlg. 3,020 ft.

California Co. No. 1 L. Adams, 990 ft. from SW and SE, sec. 39, blk. 34, H.&T.C. Sur. T.D. 2,486 ft.; set csg.

Lindsay & Bolin No. 1 Thomas, 330 ft. from SW and SE, sec. 31, Blk. 34, H.&T.C. Sur. S.D. 2,820 ft.

Olsen & Anderson No. 1 Yell, W. F. Stewart Sur., sec. 6. T.D. 2,600 ft.; P.B. to 2,455 ft.; standardizing.

Peck et al No. 1 Reynolds, sec. 12, Blk. 32, H.&T.C. Sur. Drlg. 1,900 ft.

Richardson Oils, Inc., No. 1 Hathaway, 2,310 ft. from SE and 330 ft. from NE, sec. 37, Blk. 34, H.&T.C. Sur. Cellar.

Superior Oil Co. No. 1 J. H. Hughes, sec. 67, Blk. 34, H.&T.C. Sur. Drlg. 1,250 ft.

Winkler County

R. H. Henderson No. 1 McCutchen, sec. 16, Blk. B-3. Derrick.

R. H. Henderson et al No. 1 J. B. Walton, sec. 10, Blk. 26. Drlg. 2,905 ft.

R. H. Henderson et al No. 1 J. B. Walton, sec. 9, Blk. 26. S.D. 2,935 ft.

R. H. Henderson No. 2-B Walton, 330 ft. from N and W, sec. 10, Blk. 26. Loc.

Herbert Oil Co. No. 1 I. Hendrick, 2,310 ft. from S and W, sec. 14, Blk. 26. T.D. 2,520 ft.; crooked hole.

Illinois Oil Co. No. 1 Central State Bank of Abilene, sec. 23, Blk. 26, P.S.L. Sur. Drlg. 1,736 ft.

K-D Oil Co. No. 1 P. Mitchell, sec. 23, Blk. B-10, P.S.L. Sur. Drlg. 1,126 ft.

Magnolia Pet. Co. No. 1 State-Walton, sec. 7, Blk. B-3. Drlg. 3,426 ft.

Fred Hyer No. 1 Evans, sec. 8, Blk. 56. Drlg. 3,612 ft.

Joiner No. 1 Evans, sec. 46, Blk. 73, P.S.L. Sur. Fishing 3,128 ft.

Sun Oil Co. No. 1 Keystone, sec. 3, Blk. 77. Drlg. 3,624 ft.

Superior O. & G. Co. of Tulsa No. 1 M. J. Hill, sec. 16, Blk. B-11, P.S.L. Sur. S.D. 1,120 ft.; to recmt. csg.

Wahlenmaier and Atlantic Oil Prod. Co. No. 1-A Walton, sec. 34, Blk. 74. Drlg. 2,871 ft.

Yoakum County

C. J. Davidson et al No. 1 Bennett, sec. 678, John H. Gibson Sur. Elev. 3,557 ft.; S.D. 5,112 ft.; water exhausted; flowed 30 bbls. oil in 30 min.; drlg. 5,212 ft.

GULF COAST FIELDS

Week Ending March 28

Raccoon Bend—Austin County

Humble O. & R. Co. No. 17 Paine, Wm. C. White Sur. T.D. 4,095 ft.; 7-in. csg. at 3,896 ft.; I.P. 18 B.P.H.; ¼-in. choke; T.P. 530 lbs.; C.P. 640 lbs.

Humble O. & R. Co. No. 3-X Remment, Wm. C. White Sur. Drlg. rock 2,325 ft.

Humble O. & R. Co. No. 10-X Sherrod, Wm C. White Sur. Drlg. sdy. sh. 3,339 ft.

Byron Mound—Brazoria County

Texas Co. No. 2 Freeport Sulphur Co., C. Arocia Sur. Drlg. sh. and shells 1,183 ft.

Damon Mound—Brazoria County

Sinclair Prairie Oil Co. No. 24 Jackson, H. Darst Sur. Rig.

Hastings—Brazoria County

Humble O. & R. Co. No. 4 Cannon, H.T.& B. Sur. No. 36. T.D. 6,030 ft.; 7-in. csg. at 5,876 ft.; W.O.C.

Stanolind O. & G. Co. No. 1 C. D. Brown, H.T.&B. Sur. No. 29. T.D. 6,080 ft.; fsg. for screen.

Stanolind O. & G. Co. No. 2 Brown, H.T. &B. Sur. No. 29. Drlg.

Stanolind O. & G. Co. No. 1 Droege Meyer,

H.T.&B. Sur. No. 36. Cg. sdy. sh. 5,-995 ft.

Stanolind O. & G. Co. No. 4 Grote, A.C. H.T.&B. Sur. No. 2. Drlg. sdy. sh. 5,-241 ft.

Stanolind O. & G. Co. No. 5 Shaw, H.T.& B. Sur. No. 36. T.D. 5,836 ft.; 7-in. csg. at 5,608 ft.; W.O.C.

Stanolind O. & G. Co. No. 7 Sneed, A.C. H.&B. Sur. No. 2. T.D. 6,080 ft.; 7-in. sec. 6,005 ft.

Stanolind O. & G. Co. No. 4 B. L. Turney, A.C.H.&B. Sur. No. 1. Drlg.

Manvel—Brazoria County

Bowles & Barsodi No. 5 Norvell, Lot 45, sec. 23, H.&T.C. Sur. Drlg. sh. 4,025 ft.

Texas Co. No. 5-B Belcher, H. N. Little Sur. T.D. 5,150 ft.; 7-in. csg. at 5,120 ft.; W.O.C.

Texas Co. No. 21 Houston Oil Field Assn., A.C.H.&B. Sur. No. 91. T.D. 2,237 ft.; W.O.C.

Texas Co. No. 2 Natali, H. N. Little Sur. T.D. 5,150 ft.; 7-in. csg. at 5,129 ft.; drlg. plug.

Turman Oil Co. No. 3 F. Hart, H.T.&B. Sur. No. 24. Drlg. sh. 3,850 ft.

Uscan Oil Co. No. 1 Wilson, H.T.&B. Sur. No. 23. Rig.

Anahuac—Chambers County

Humble O. & R. Co. No. 3 Engels, H.&T. C. Sur. No. 50. T.D. 7,082 ft.; top sd. at 6,940 ft.; I.P. 29 B.P.H.; ¼-in. choke; T.P. 1,150 lbs.; C.P. 1,150 lbs.

Humble O. & R. Co. No. 3 Grippon, H.& T.C. Sur. Drlg. sh. 1,530 ft.

Humble O. & R. Co. No. 1 C. A. Lord, H.&T.C. Sur. Drlg. sh. 2,031 ft.

Humble O. & R. Co. No. 1 Johnson, H.& T.C. Sur. T.D. 7,085 ft.; 7-in. csg. 7,048 ft.; comp.; no gauge.

Humble O. & R. Co. No. 15 Middleton, H.&T.C. Sur. T.D. 7,085 ft.; 7-in. csg. at 7,045 ft.

Humble O. & R. Co., No. 5 Tyrell, H.& T.C. Sur. T.D. 7,082 ft.; 7-in. csg. at 7,041 ft.; W.O.C.

Humble O. & R. Co. No. 2 Wilcox, sec. 50, H.&T.C. Sur. Rig.

Humble O. & R. Co. No. 3 White, James McGahey Sur. T.D. 7,095 ft.; 7-in. csg. 7,063 ft.

Sun Oil Co. No. 9 White, J. McGahey Sur. T.D. 7,084 ft.; I.P. 27 B.P.H.; ¼-in. choke; T.P. 1,050 lbs.; C.P. 1,000 lbs.

Sun Oil Co. No. 10 White, J. McGahey Sur. T.D. 7,084 ft.; 7-in. csg. 7,030 ft.

Sun Oil Co. No. 11 White, J. McGahey Sur. Rig.

Sun Oil Co. No. 12 White, James McGahey Sur. Drlg.

Barbers Hill—Chambers County

Sinclair Prairie No. 19 Wilburn, Henry Griffith Sur. T.D. 5,275 ft.; hard sandy sh.; U.R. to 5,017 ft.; W.O.C.

Stanolind Oil & Gas Co. No. 20 Wilburn Wm. Hodges Sur. T.D. 4,394 ft.; I.P. 137 B.P.D. on pump.

Stanolind O. & G. Co.'s No. 29 Chambers Wm. Bloodgood Sur. Derrick.

Superior Oil Co. No. 2-B Barber. Drlg. sh. 4,975 ft.

Texas Gulf Prod. Co. No. 7 Wilburn, Wm. Hodges Sur. T.D. 5,350 ft.; I.P. 130 B. P.D.; ½-in. choke.

Turtle Bay—Chambers County

Stanolind O. & G. Co. No. 2 Middleton, M. A. Carroll Sur. Drk.

Stanolind O. & G. Co.-State No. 1 Turtle Bay. T.D. 7,459 ft.; P.B. 6,716-6,565 ft. and from 5,500-5,400 ft.; preparing to set whipstock.

Big Creek—Fort Bend County

Gulf Oil Corp. No. 68 Davis, M. Young Sur. Drlg. sh. 2,366 ft.

Blue Ridge—Fort Bend County

Ben Barnett No. 1 Blakely, E. Drew Sur. T.D. 1,995 ft.; swbd. dry; R.U. to deepen.

Mills Bennett No. 4 Luscher, T. Habermacher Sur. Rig.

S. S. Rainer No. 1 J. M. Davidson, S. Poitevent Sur. No. 3. T.D. 3,414 ft. 7-in. csg. at 3,380 ft.; I.P. 45 B.P.D.; flowing by heads.

D. M. Wallace and Woodley Pet. Co. No. 2 Blakely, E. Drew Sur. T.D. 3,963 ft.; tested S.W.; preparing to rework.

Boling—Wharton County

Texas Co. No. 16-A Anne Taylor, S. F. Austin Sur. Drlg. sd. 3,468 ft.

Orchard—Fort Bend County

Gulf Prod. Co. No. 44 Moore, Leo Burknapp Sur. Drlg. sh. 5,757 ft.

Gulf Ref. Co. No. 45 Moore, German Immigration Sur. No. 8. Sd. 6,705 ft.; S.D.

Gulf Prod. Co. No. 3-A Moore, Leo Burknapp Sur. Abd. 1,912 ft.

Gulf Oil Corp. No. 4-A Moore, J. Frazer Sur. Rig.

High Island—Galveston County

Stanolind O. & G. Co. No. 5 B.&N.O., Fitzsimmons Sur. Drlg. sh. 6,477 ft.

Stanolind O. & G. Co. No. 54 Cade, W. Fitzsimmons Sur. Drlg. sh. and lime 4,-723 ft.

Stanolind O. & G. Co. No. 55 Cade, Wm. Hudson Sur. Drlg. lime 3,530 ft.

Stanolind Oil & Gas Co. No. 18-B Smith Royalty, M. Dunman Sur. Drlg. sh. and lime 4,505 ft.

Dickinson—Galveston County

Coast Pet. Co. No. 3 Stewart, W. K. Wilson Sur. Drlg. sh. 8,415 ft.

Humble O. & R. Co. No. 2-B Bayou Dev. Co., J. Sellers Sur. T.D. 8,101 ft.; T.S. 8,090 ft.; 9⅝-in. csg. at 7,956 ft.; drlg. plug.

Humble O. & R. Co. No. 5-A Stewart, John Sellers Sur. Rig.

Humble O. & R. Co. No. 5-B Stewart, J. Sellers Sur. T.D. 8,050 ft.; sd. S.O. at 8,-037-48 ft.; 7-in. csg. at 8,029 ft.

Humble O. & R. Co. No. 1 W. H. Wilson, Blk. 103, San Leon Farm Subd., A. E. Edwards Sur. T.D. 8,042 ft.; 7-in. csg. at 8,031 ft.; I.P. 342 bbls. in 12 hrs.; ¼-in. choke; T.P. 1,350 lbs.; C.P. 2,200 lbs.

Pure Oil Co. No. 3 Shelar, B.B.B.&C. Sur. T.D. 8,052 ft.; 7-in. csg. 8,025 ft.; testing.

Stanolind O. & G. Co. No. 4 State, Tract 3. Derrick.

Stanolind O. & G. Co. No. 5 State, Tract 3. Drlg. sh. 4,100 ft.

Batson—Hardin County

Deering et al No. 2 Jordan, W. Donoho Sur. T.D. 5,140 ft.; rmg. to set 7-in. csg.

Nimrod Prod. Co. No. 1 Butler, W. Donoho Sur. Rig.

Saratoga—Hardin County

John Deering No. 1 Teel, Thomas Gaines Sur. Rig.

Pierce Junction—Harris County

Gulf Oil Corp. No. 3 Manchester, J. A. Williams Sur. Rig.

Harrison and Abercrombie No. 8 Ritter, J. Hamilton Sur. Drlg. sh. 4,670 ft.

Rio Bravo Oil Co. No. 10 fee, B.B.B.&C. Sur. T.D. oil sd. 4,635 ft.; running 7-in. csg. at 4,332 ft.

Rio Bravo Oil Co. No. 4 G.H.&S.A., G.H.& S.A. R.R. track. T.D. 5,014 ft.; P.B. to 4,153 ft.

Wright et al No. 4 Gulf Jones fee, J. A. Williams Sur. Drlg. 1,375 ft.

Humble—Harris County

Texas Co. No. 51 Stevenson, J. B. Stevenson Sur. Drlg. sh. and lime 2,513 ft.

Mykawa—Harris County

West Prod. Co. No. 9 Irwin, W. B. Walker Sur. Drlg. sh. 2,300 ft.

South Houston—Harris County

Smith & McDannald No. 1 S. S. Vallos, Mary Nichols Sur. Top oil sd. 3,907 ft.; cg. oil sd. 3,917 ft.; comp.; no gauge; T.P. 1,175 lbs.; C.P. 1,550 lbs.

Stanolind O. & G. Co. No. 2 First National Bank, Callahan and Vince Sur. T.D. 4,-811 ft.; I.P. 374 B.P.D.; ¼-in. choke; T.P. 450 lbs.; C.P. 650 lbs.

Stanolind O. & G. Co. No. 1 Griffin, H. T.&B. Sur. No. 36. T.D. 4,875 ft.; 7⅝-in. csg. at 4,830 ft.; failed to flow; placed on pump; preparing to test.

Stanolind O. & G. Co. District No. 4, H. T.&B. Sur. Drlg. sd. 4,254 ft.

Stanolind O. & G. Co. District No. 6, H. T.&B. Sur. Drlg. sh. 4,245 ft.

Stanolind O. & G. Co. District No. 7, H. T.&B. Sur. Cg. sh. 4,515 ft.

Stanolind O. & G. Co. District No. 20, H. T.&B. Sur. T.D. 1,427 ft.; 10¾-in. csg. 1,423 ft.

Stanolind O. & G. Co. No. 1, District 46, center of Lot 8, Blk. 158, H.T.&B. Sur. No. 5. S.D. 5,326 ft.

Tomball—Harris County

Humble O. & R. Co. No. 4 Faris, W. Usner Sur. T.D. 5,538 ft.; 7-in. csg. on bottom; perforated csg.

Humble O. & R. Co. No. 3 Scherer. Drlg. sd. 5,510 ft.

Humble O. & R. Co. No. 1 West, Elizabeth Smith Sur. T.D. 5,560 ft.; 7-in. csg. on bottom; perforated 5,556-60 ft.; swbg.

Shell Pet. Corp. No. 1 Robertson. T.D. 5,562 ft.; rocking with gas.

Sun Oil Co. No. 6 Metzler, C. N. Pillot Sur. T.D. 5,562 ft.; 7-in. csg. at 5,550 ft.; I.P. 176 bbls. in 9 hrs.; ¼-in. choke; T.P. 350 lbs.; C.P. 800 lbs.

Amelia—Jefferson County

Humble O. & R. Co. No. 1 Brousseard C. Williams Sur. Cg. sd. 7,806 ft.

Humble O. & R. Co. No. 2 R. C. Miller, A. Savery Sur. Drlg. sh. 7,340 ft.

Glenn McCarthy No. 2 Bessie Longe, H. Williams Sur. Drlg. sh. 980 ft.

Big Hill—Jefferson County

Stanolind O. & G. Co. No. 3-A Pipkin and Davis, Wm. McFaddin Sur. Rig.

Fannett—Jefferson County

Blue Eagle Oil Co. No. 2 Junker, W. H. Smith Sur. No report.

Gulf Oil Corp. No. 18 Thomas, W. H. Smith Sur. Drlg. sh. 4,982 ft.

Cleveland—Liberty County

Gulf Oil Corp. No. 14-C Kirby, C. J. Pleasant Sur. Drlg. sh. 1,565 ft.

Esperson—Liberty County

Crown Pet. Co. No. 1 Davis, D. Kokernot Sur. Drlg. sh. 500 ft.

General Crude Oil Co. No. 14 Davis, D. Kokernut Sur. Derrick.

General Crude Oil Co. No. 25 Esperson, Wm. Bloodgood Sur. Bldg. drk.

Hankamer—Liberty County

Gulf Oil Corp. No. 6 Crow and Jacobs, H.&T.C. Sur. No. 21. Drlg. sd. and lime 3,630 ft.

Hardin—Liberty County

Atlantic Oil & Prod. Co. et al No. 1 Hardy, James Robinson Sur. 10¾-in. csg. 1,060 ft.; drlg. plug.

Hull—Liberty County

Humble O. & R. Co. No. 39 Guedry, J. Devore Sur. Drlg. sh. 4,138 ft.

Bay City—Matagorda County

Skelly Oil Co. No. 1 Langham, M. Cummings Sur. Rig.

Skelly Oil Co. No. 4-B Cobb, M. Cummings Sur. T.D. 7,502 ft.; oil sd.; running csg.

Markham—Matagorda County

Hamill & Hamill No. 4 Hudson, H. Parker Sur. Rig.

Conroe—Montgomery County

Sun Oil Co. No. 18 Foster, C. B. Stewart Sur. Drlg. sh. and lime 2,549 ft.

Orange—Orange County

T. J. Ward et al No. 1 E. W. Brown, S. M. Luce Sur. T.D. 6,168 ft.; S.D.

Port Neches—Orange County

Texas Co. No. 6-B Polk, J. Beaumont Sur. T.D. 6,952 ft.; 7-in. csg. at 5,856 ft.; drilled plug; circulating and conditioning mud; P.B. to 5,721 ft.; drld. cmt. plug to 5,676 ft.

Livingston—Polk County

Humble O. & R. Co. No. 27 Granbury, A. Viesca Sur. Set 10¾-in. csg. at 573 ft.; S.D.

Ownby-Shell No. 2 Munson, A. Viesca Sur. T.D. 4,300 ft.; 5½-in. csg. at 4,278 ft.; I.P. 368 B.P.D. through ¼-in. choke; T.P. 510 lbs.

Greta—Refugio County

United Gas Co. No. 23 Lambert, Hardwick Sur. Drlg. sh. 5,210 ft.

Hewitt and Daugherty No. 22 Lambert, Hardwick Sur. Cg. sh. 5,858 ft.

Refugio—Refugio County

Local Oil Co. No. 1 W. L. Rea, Refugio Townsite. T.D. 4,924 ft.; 5-in. csg. 4,915 ft.; I.P. 120 B.P.D.; T.P. 750 lbs.; C.P. 200 lbs.

United Gas Co. No. 17 Fox Hews Survey. T.D. 5,900 ft.; testing.

Tomoconnor—Refugio County

Quintana Oil Co. No. 33-A O'Conner, Swisher Sur. Rig.

Coletto Creek—Victoria County

American Liberty Oil Co. No. 2 Laughler, R. Manchola Sur. Rig.

American Liberty Oil Co. No. 3 Machalic, R. Manchola Sur. T.D. 2,871 ft.; 7-in. csg. at 2,854 ft.; I.P. 8 B.P.H.; gas jet; ¼-in. choke.

National Pet. Corp. No. 1 J. Stehle, Piedras Gellardo Sur. Abd. 5,393 ft.

Placedo—Victoria County

American Liberty Oil Co. No. 4 Gray, S.A.&M.G. Sur. Drlg. sdy. sh. 3,250 ft.

Barnsdall Oil Co. No. 2 W. H. Smith, Lot 7. T.D. 6,035 ft.; 5.3-in. lnr. at 6,-025 ft.; I.P. 287 B.P.D.; 5/32-in. choke; T.P. 840 lbs.; C.P. 1,000 lbs.

Barnsdall Oil Co. No. 2 Pickering-Ross, S.A.&M.G. Sur. T.D. oil sand 4,758 ft.; running casing.

Barnsdall Oil Co. No. 3 J. M. Pickering S.A.&M.G. Sur. No. 5. R.U.

Barnsdall Oil Co. et al No. 2 Wheless, J. M. Bronson Sur. R.U.

Crown Central Pet. Co. No. 1 F. Gebrover, S.A.&M.G. Sur. No. 8. Rig.

Eastern Texas Prod. Co. No. 1 Krappa, Lot 12, Wm. Rupley Sur. T.D. 6,480 ft.; 5 3/16-in. csg. at 5,370 ft.; perforated; 5,340 ft.; comp. for dry gas well.

Harrison & Abrocrombie No. 1 C. O. Voss, J. M. Bronson Sur. Drlg. sh. and shells 5,290 ft.

Superior O. & G. Co. et al No. 2 Janis, Wm. Rupley Sur., A-290. T.D. 4,743 ft.; 5 3/16-in. csg. set on bottom; I.P. 200 B.P.D.; ¼-in. choke; T.P. 350 lbs.; C.P. 325 lbs.

Sun Oil Co. No. 4 Marek, J. M. Bronson Sur. M.I.

Clay Creek—Washington County

Sun Oil Co. No. 3 Freeman, J. F. Perry Sur. Rig.

Sun Oil Co. No. 1 H. Lauter, N. Clay Sur. Rig.

Louise—Wharton County

Pure Oil Co. No. 3 Lancaster, M.&C. Sur., sec. 23. 10¾-in. csg. at 1,217 ft.; W.O.C.

Pure Oil Co. No. 1 Rivera, sec. 19. Cg. sdy. sh. 5,155 ft.

Pickett Ridge—Wharton County

Texas Co. No. 13-A Pierce, I.&G.N. Sur. Drlg. sd. 4,696 ft.

Texas Co. No. 14-A Pierce, I.&G.N. Sur. No. 39. Drk.

Texas Co. No. 15-A Pierce, G.H.&S.A. R.R. right of way. Drlg. sh. and bldrs. 4,-156 ft.

Texas Co. No. 16-A Pierce, I.&G.N. Sur. Drlg. sh. and lime 3,152 ft.

Withers—Wharton County

Texas Co. No. 1-B Pierce, E.T. R.R. Sur., Abst. No. 108. Drlg. gbo. and bldrs. 1,-150 ft.

Texas Co. No. 3-C Pierce, J. Caldwell Sur. T.D. 5,565 ft.; 7-in. 5,557 ft.; W.O.C.

Texas Co. No. 4-C Pierce, J. Caldwell Sur. Drk.

SOUTH LOUISIANA FIELDS

Bayou Mallet—Acadia Parish

Superior Oil & Prod. Co. No. 1 Bradley, sec. 47-7s-1e. T.D. 8,000 ft.; 7-in. csg. 7,-314 ft.; perforated to 6,385-90 ft.; I.P. 324 B.P.D. through 12/64-in. choke.

Black Bayou—Cameron Parish

Shell Pet. Corp. No. 26 Watkins, sec. 18-12s-12w. Cg. sandstone 4,374 ft.

Shell Pet. Corp. No. 28 Watkins. P.B. to 4,306 ft.; swbng.

Shell Pet. Corp. No. 31 Watkins, sec. 8-12s-13w. T.D. 5,587 ft.; running 7-in. csg.

Caillou Island—Terrebonne Parish

Texas Co. No. 22 Caillou Island, sec. 26-23s-26e. T.D. 4,305 ft.; I.P. 1,175 B.P.D. through ⅝-in. choke.

Texas Co. No. 2 Terrebonne Bay, sec. 19-23s-26e. Sd. 6,642 ft.

Texas Co. No. 33 State. Sd. 4,115 ft.; no report.

Texas Co. No. 35 State, sec. 17-22s-26e. Drlg. sh. and lime 4,393 ft.

Cameron Meadows—Cameron Parish

Burton Sutton Oil Co. No. 12 School Land, sec. 16-14s-13w. Recovered 3,700 ft. of oil on drill stem from 3,780-3,800 ft.; set csg. and swabbed dry.

Burton Sutton Oil Co. No. 13 School Land, sec. 16-14s-13w. Derrick.

Texas Co. No. 2 Miami Corp., sec. 15-14s-13w. Drlg. sh. 2,826 ft.

Chenevyille—Rapides Parish

Amerada Pet. Corp. No. 1 Beasley, sec. 52-1s-2e. T.D. 5,719 ft.; 7-in. csg. at 5,714 ft.; I.P. 212 B.P.D.; 20/64-in. choke; T.P. 125 lbs.; C.P. 500 lbs.

Texas Co. No. 1 Weil, sec. 53-1s-2e. R.U.

Texas Co. No. 2 Weil, sec. 53-1ss-2e. Drlg. sh. 2,310 ft.

Texas Co. No. 1 State (Andrade), sec. 5-1ss-2e. Sh. 830 ft.

Choctaw Dome—Iberville Parish

Standard Oil Co. No. 8 Myrtle Grove Wilburt, sec. 52-9s-11e. T.D. 5,838 ft.; P.B. to 3,000 ft.; sdtrd.; drlg. sh. 3,712 ft.

Darrow—Ascension Parish

Humble O. & R. Co. No. 10 Community, sec. 32-10s-2e. T.D. 5,597 ft.; I.P. 24 B. P.H.; ¼-in. choke; T.P. 825 lbs.; C.P. 825 lbs.

Humble O. & R. Co. No. 6 Gumble, sec. 33-10s-2e. T.D. 6,157 ft.; P.B. 4,403 ft. and strd.; drlg. new hole 4,560 ft.

Dog Lake—Terrebonne Parish

Texas Co. No. 3 State, sec. 5-22s-16e. Drlg. shale 6,428 ft.

Edgerly—Calcasieu Parish

J. G. Sutton No. 17 Lillard, sec. 28-9s-11w. S.D. 1,552 ft.

Thompson & Mossart No. 1 Fairchild. Drk.

Garden Island Bay—Plaquemines Parish

Texas Co. No. 18 State, sec. 37-23s-33e. Drlg. sand 3,878 ft.

Gillis—Calcasieu Parish

Fohs Oil Co. No. 1 Frost, sec. 11-9s-8w. Drlg. sh. 6,119 ft.

Fohs Oil Co. No. 1 Mary McIver, sec. 14-9s-8w. Derrick.

Union Sulphur Co. No. 1 J. A. Bel estate. Drlg. 6,483 ft.

Union Sulphur Co. No. 1 G. S. Cole, sec. 12-9s-8w. Drlg. sh. 1,710 ft.

Union Sulphur Co. No. 6 Castle, sec. 18-9s-8w. Prepare to test sd. 5,427-32 ft.

Union Sulphur Co. No. 18 State, sec. 13-9s-8w. T.D. 6,741 ft.; 5-in. csg. at 6,738 ft.; comp.; no gauge.

Hackberry—Cameron Parish

Gulf Ref. Co. No. 20 Irwin, sec. 12-12s-10w. T.D. 7,806 ft.; P.B. 6,800 ft.; W.O.C.

Stanolind O. & G. Co. No. 16-A School Land, sec. 16-12s-12w. R.U.

Stanolind O. & G. Co. No. 21-B Gulf Land, sec. 14-12s-10w. Sh. 6,830 ft.

Stanolind O. & G. Co. No. 23-B Gulf Land, sec. 14-12s-10w. Drk.

Texas Co. No. 19-B State, sec. 13-12s-9w. Drlg. sh. 5,812 ft.

Iowa—Jefferson Davis Parish

Shell Pet. Corp. No. 19 Heyd, sec. 13-9s-7w. T.D. 9,161 ft.; P.B. to 5,225 ft.; prepare to test.

Shell Pet. Corp. No. 20 Heyd, sec 13-9s-7w. T.D. 5,275 ft.; P.B. to 5,246 ft.; testing.

Shell Pet. Corp. No. 7 Stafford, sec. 13-9s-7w. Drlg. sd. 250 ft.

Jeanerette—St. Mary Parish

Herton Oil Co. No. 1 Banta, sec. 49-13s-9e. Drlg. sh. 2,630 ft.

Herton Oil Co. No. 1 Carter, sec. 38-13s-9e. Drlg. sh. 2,710 ft.

Herton Oil Co. No. 3 Roane, sec. 40-13s-9e. R.U.

Jennings—Acadia Parish

Shell Pet. Corp. No. 1 Conover, sec. 49-9s-2w. Drlg. sandstone 4,842 ft.

Stanolind O. & G. Co. No. 16 Houssiere-Latreille, sec. 47-9s-2w. Set conducter pipe 24 ft.

Lafitte—Jefferson Parish

Texas Co. No. 3 Rigolettes, sec. 30-17s-24e. Drlg. sh. 3,992 ft.

Texas Co. No. 3 Lafitte, sec. 19-17s-24e. Drlg. O.S. at 9,417 ft.; no report.

Lake Hermitage—Plaquemines Parish

Gulf Ref. Co. No. 4 LaFourche Basin Levee sec. 15-18s-25e. Abd. 3,600 ft.

Lake Barre—Terrebonne Parish

Texas Co. No. 37 Lake Barre State. R.U.

Texas Co. No. 39 State, sec. 20-12s-20e. Drlg. sh. 2,912 ft.

Leesville—LaFourche Parish

Gulf Prod. Co. No. 8 Allen Land Co., sec. 21-21s-22e. T.D. 3,812 ft.; I.P. 397 B.P. D.; ¼-in. choke.

Lincoln Oil Co. No. 1 Constentino, sec. 27-21s-22e. Rig up.

Texas Co. No. 44 Leesville, sec. 27-21s-22e. T.D. 4,200 ft.; rng. csg.

Roanoke—Jefferson Davis Parish

Glassell and Gulf Prod. Co. No. 1 T. A. Anding, sec. 2-9s-4w. T.D. 8,692 ft.; 7-in. csg. 8,672 ft.; W.O.C.

Humble O. & R. Co. No. 2 Nelson H. Thomas, sec. 11-9s-4w. T.D. 8,694 ft.; 7-in. csg. at 8,667 ft.; I.P. 55 B.P.H.; ¼-in. choke; T.P. 1,600 lbs.; C.P. 1,000 lbs.

Humble O. & R. Co. No. 3 C. N. Taylor, sec. 12-9s-4w. Elg.

Shell Pet. Corp. No. 5 Kratzer, sec. 12-9s-4w. Drlg. sd. 2,223 ft.

Port Barre—St. Landry Parish

Pacheco Oil Co. No. 1 Gauden, Sec. 4-6s-6e. Cg. sd. S.O. 3,637 ft.; no report.

Pan American Prod. Co. No. 1 Watkins. T.D. 5,026 ft.; P.B. to 2,850 ft.; drlg. sh. 4,312 ft.

St. Martinville—St. Martin Parish

Continental Oil Co. No. 1 fee, sec. 18-11s-6e. Drlg. sh. 1,512 ft.

Tide Water Oil Co. No. 2 Smedes, sec. 57-11s-6e. T.D. 8,714 ft.; 9⅝-in. csg. at 7,412 ft.; sdtr. and cg. sh. 8,715 ft.

Sorrento—Ascension Parish

Athens Oil Co. No. 4 United land, sec. 15-10s-4e. Drlg. sh. 2,014 ft.

Sorrento Oil Co. No. 1 Bernard, sec. 9-10s-4e. Derrick.

Starks—Calcasieu Parish

L. R. Welbite No. 1 Industrial Lbr. Co. sec. 19-9s-12w. T.D. 4,263 ft.; P.B. to 3,600 ft.; P.B. again to 2,593 ft.; set whipstock; drlg. through plug.

Sulphur—Calcasieu Parish

Union Sulphur Co. No. 821 fee, sec. 29-9s-10w. Drlg. sh. 3,312 ft.

Union Sulphur Co. No. 822 fee, sec. 29-9s-10w. Drlg. 1,619 ft.

Tepetate—Acadia Parish

Continental Oil Co. No. 2 Homeseekers, sec. 29-7s-2w. Drlg. 5,857 ft.

Continental Oil Co. No. 2 C. Miller, sec. 29-7s-2w. Cd. gas sd. 8,290-8,304 ft.; cg. ahead for oil sd.

Continental Oil Co. No. 1 P. W. Miller, sec. 28-7s-2w. T.D. 8,308 ft.; O.S.

Loffland Bros. No. 1-A L. C. Bowles, sec. 28-7s-2w. Cg. sh. 7,526 ft.

Loffland Bros. No. 1-B L. C. Bowles, sec. 28-7s-2w. T.D. 7,419 ft.; P.B. to 6,450 ft.; cg. sdy. sh. 7,436 ft.

White Castle—Iberville Parish

Shell Pet. Corp. No. 10 Wilbert, sec. 1-11s-12e. T.D. 6,466 ft.; 9⅝-in. csg. 6,450 ft.; W.O.C.; I.P. 350 bbls. oil and 63 bbls. S.W. per day.

Miscellaneous Wildcats

TEXAS

Brazoria County

Strake Oil Corp. et al No. 1 D. K. Poole, J. W. Harding Sur. Drlg. sh. 4,900 ft.

Texas Gulf Prod. Co. No. 1 Sparks. 10¾-in. csg. 1,173 ft.; W.O.C.

Chambers County

Salt Dome Oil Co. No. 2 Lawrence, Solomon Borrow. 10¾-in. csg. 1,415 ft.; drlg. sh. 2,208 ft.

Calhoun County

Continental Oil Co. No. 2-A American Realty Co., Pedro Garcia Sur., Lot 1, Blk "C." T.D. 9,082 ft.; set 5⅛-in. csg. on bottom; csg. collapsed; plugged off the bottom of csg. at 8,010 ft.; perforated csg. 7,737-75 ft.; prepare to test.

Crown Central Pet. Co. No. 1 W. C. Driscoll, Benito Morales Sur. Drlg. sh. 3,750 ft.

Humble O. & R. Co. No. 1 Patrick H. Weider, Jose Maria Rios Sur. Drlg. sh. 6,070 ft.

Colorado County

G. W. Johnson No. 1 Drymalle, T. Coleman Sur. Drlg. sh. 2,200 ft.

Sterling Oil & Roy. Co. No. 2-B Powell, I.&G.N. Sur., sec. 45. Drlg. sh. in sdtr. hole 5,677 ft.

Galveston County

Sun Oil Co. No. J. D. Hughes, W. M. C. Baker Sur. T.D. 8,613 ft.; milling at 8,508 ft.

Grimes County

Crook Bros. No. 1 W. W. and J. C. Greir. Derrick.

Hardin County

Republic Prod.-Houston Oil Co. No. 1 A. A. Burrell, A. A. Burrell Sur. No. 5-A. T.D. 7,776 ft.; P.B.; set whipstock at 3,588 ft.; drlg. sh. 6,369 ft.

Harris County

Amerada Pet. Corp. No. 1 Nellie Esperson, George Patrick Sur. Spudded.

Bunte O. & G. Co. No. 1 Lobit et al, Benjamin Barrow Sur. Drk.

Jefferson County

Sun Oil Co. No. 1 Herbert & Broussard, B. Blackman Sur., Abst. No. 2. T.D. 8,-824 ft.; P.B. and sidetracked at 8,282 ft.; set whipstock at 7,403 ft.; P.B. to 7,345 ft.; drlg. sd. and sh. 7,354 ft.

Smith and McDannald No. 1 Grennell, Blk. 8, H.&T.C. Sur. Drlg. sdy. sh.

Matagorda County

Continental Oil Co. No. 1 Feltz, J. P. Criswell Sur. T.D. 7,629 ft.; P.B. to 6,624 ft.; cutting and pulling 8⅝-in. csg.

Heimerich & Payne, No. 1 Hawkins, D. McCarthy Sur. T.D. 7,831 ft.; P.B. to 7,316 ft.; perforated csg. 7,189-7,229 ft.; no results; perforating from 7,020-64 ft. and 7,092-11 ft.

H. M. Smith et al No. 2 Wadsworth, Lot 33, Blk. 4, S. R. Fisher Sur. T.D. 1,300 ft.; 12¾-in. csg. set 1,290 ft.; S.D.

Sun Oil Co. No. 1 Craig, Thomas Williams Sur. T.D. 5,999 ft.; preparing to shoot csg.

Montgomery County

Chapman and Smith No. 1 Delta Land & Timber Co., T. Shepperd Sur. No. A-488. S.D. 2,661 ft.

Chapman & Smith No. 2 Delta Land & Timber Co., T. Shepherd Sur. S.D. 2,-668 ft.

Jack Frazier No. 1 Maxey, James Brown Sur. T.D. 6,004 ft.; abd.

Polk County

O. C. Davis No. 1 Knox, F. Chairs Sur. Abd. 3,525 ft.

J. P. Lightfoot et al No. 1 Lynch Davidson, Houston County School Land Sur., Abst. No. 270. S.D. 2,512 ft.

Washington County

W. D. Twichell et al No. 1 W. H. Hoxie, S. Clampit Sur. Drlg. sh. 1,830 ft.

Wharton County

Pure Oil Co. No. 1 Paige, James Pirie Sur. T.D. 7,756 ft.; circulating.

Sterling O. & R. Co. No. 1 Agnes Genger, J. Scott Sur. Cmtd. sur. csg. 720 ft.; S.D.

Texas Co. No. 1 Joseph Marek, I.&G.N. Sur. No. 76. T.D. 5,010 ft.; P.B. to 4,-622 ft.; perforated csg. 4,600-12 ft.; I.P. 225 bbls. per day; ¼-in. choke; T.P. 400 lbs.; C.P. 750 lbs.

SOUTH LOUISIANA

Avoyelles Parish

Frost Oil Co. No. 1 Hinds Lbr. Co., sec. 3-3n-4e. R.U.

Calcasieu Parish

A. G. Oliphant No. 1 Calcasieu National Bank, sec. 23-10s-12w. Abd. 7,509 ft.

West Feliciana Parish

Southern Minerals Corp. No. 1 Mary B. Wood, sec. 54-1s-4w. Abd. 1,138 ft.

R. L. Morris (C. L. Thompson) No. 1 Percy, sec. 39-1s-4w. Drlg. shale 4,309 ft.

Iberia Parish

Canal Oil Co. No. 1 Bolivar, sec. 2, in sec. 56-12s-7e. Topped salt 4,221 ft.; P.B. and sidetracked; S.D. 3,118 ft. in new hole.

Canal Oil Co. No. 3 Sabatier, sec. 54-12s-7e. Drk.

Jefferson Lake Oil Co. No. 1 State, Twp. 12s-5e. T.D. 8,610 ft.; tested S.W.; perforated from 8,446-68 ft. with 50 holes; D.S.T.'s showed nothing; W.O.

Jefferson Lake Oil Co. No. 322 State Lake Pleigneur. Drlg. sh. 3,630 ft.

Kitos Oil Co. No. 2-A Sealey, sec. 56-12s-7e. R.U.

Texas Co. No. 1 State Fausse Point, P.B. to 6,400 ft.; cmtd. whipstock and sidetracked at 5,781 ft.; T.D. 6,495 ft. in new hole; stuck D.S.

Jefferson Davis Parish

J. K. Lewis No. 1 Lockmore, sec. 32-7-6. T.D. 5,710 ft.; T.D. of sidetracked hole 5,516 ft.; hole cleaned of junk; preparing to drill plug.

Shell Pet. Corp. No. 1 Lacassan, sec. 20-11s-5w. T.D. 9,802 ft.; fsg.

St. James Parish

Shell Pet. Corp. No. 1 Colonial Sugar, sec. 5-12s-5e. Cg. sh. and lime 6,128 ft.

St. Martin Parish

Southern Oil (S. C. Yingling et al) No. 1 State, sec. 13-9s-8w. T.D. 3,130 ft.; 7-in. csg. at 3,120 ft.; running screen and lnr. to test; no report.

Texas Co. No. 8 St. Martins Land, sec. 17-8s7e. Drlg. sh. 7,116 ft.

Plaquemines Parish

Southern Sulphur Co. No. 1 Manhattan Fruit Co., sec. 26-21s-30e. S.D. 3,512 ft.; shale.

Rapides Parish

Foster Oil Co. No. 1 J. F. Hogan, sec. 2-1s-2e. T.D. 5,751 ft.; prepare to make D.S.T.

Vernon Parish

Llano Cooperative Oil Co. No. 3 Llano Del Rio, sec. 7-1n-9w. S.D. 2,951 ft.

E. C. TEXAS WILDCATS

Week Ending March 28

Bowie County

Woodley Pet. Co. No. 1 Lumpkin. Drlg. 2,306 ft.

Grayson County

Olson Drlg. Co. No. 1 Southwestern Life Ins. Co., J. C. Jamison Sur., 6 miles NW of Denison. Elev. 767 ft. Top Viola 4,-901 ft.; top Woodford 4,474 ft.; drlg. 5,-075 ft.

Franklin County

W. C. Windsor and Humble O. & R. Co. No. 1 King & Hughes, in O. James Sur., 1½ mi. SW of Talco. Top Georgetown 3,393 ft.; flowed at 4,180 ft. while cg.; T.D. 4,197 ft.; cd. more sd.; set tbg. to test.

Freestone County

Clark & Cowden No. 1 M. Scott, 330 ft. NE of NE cor. of Church Lot in Amalt Sur., 7 mi. N of Fairfield. Drk.

Lamar County

J. Forrester et al No. 1 J. E. Woodward, L. Highton Sur., but in J. W. Woodward Sur., 1 mi. E of Mintel. Top Paluxy 3,060 ft.; elev. 402 ft.; fsg. 3,-700 ft.

Limestone County

C. L. Lytle No. 1 J. L. Thompson, P. Varella Sur., Mexia field. Fsg. 5,460 ft.

Navarro County

W. A. Reiter et al No. 1 T. W. Bounds, 330 ft. from N and E of H.T.&B. Sur. Top Austin 2,605 ft.; S.D. 2,865 ft.

Nacogdoches County

Overtex Oil Co. No. 1 Hazelwood, J. L. Ewing Sur., 15 mi. S of Nacogdoches. Drlg. 3,820 ft.

Red River County

Midwest and Texhomia Oil Co. No. 1 Hacker & Hughes, M.E.&P. Sur., 9 mi. NE of Talco. M.I.M.

Orr et al No. 1 Kurth Lbr. Co., 3,960 ft. from N and 600 ft. from W line of E. Smith Sur., center of county. Drk.

Williams et al No. 1 L. and O. Roberts, James Bankston Sur., 2 miles NE of Annona. Elev. 396 ft.; S.D. 725 ft.

Rusk County

McCallum et al No. 1 E. C. Gary, John Piburn Sur., 5 miles S of Henderson. Elev. 338 ft.; S.D. 3,440 ft.

Pure Oil Co. No. 1 W. H. Faulkner, Wm. Elliott Sur., S of Concord. Elev. 563 ft.; drlg. 110 ft.

J. W. Shipman et al No. 1 Citizens Natl. Bank, NE cor. of 125-ac. tract, J. J. Y'Barbo Sur., 4 miles NE of Henderson. S.D. 3,487 ft.

Titus County

Pleasant Oil Co. No. 1 C. M. Carr, North M. V. Delgado Sur., 1½ mi. E of Talco. T.D. 4,208 ft.; putting on pump.

Humble O. & R. Co. No. 1 M. B. Groves, Ben Jones Sur. Cut fault at 1,642 ft.; Top Woodbine 3,240 ft.; cg. 4,125 ft.

Humble O. & R. Co. No. 1 M. Galt, 210 ft. from N and 419 ft. from W line of R. Winn Sur., 1½ mi. SE of Talco. Drk.

Jule Alford, tr., No. 1 W. D. Fry, 330 ft. out of most northerly SE cor. of tract, I.P. Stern Sur., 1½ mi. S of Carr well. R.U.

O'Neal, tr. No. 1 O. C. Lillianstern, C of 80 ac., Wm. Canon Sur., 4 mi. SE of Carr well. Elev. 362 ft.; top Pecan 1,-375 ft.; drlg. 1,533 ft.

Texas Panhandle Wildcats

Week Ending March 28

Cottle County

Alma Oil Co. No. 1 Yarbrough, sec. 546, Blk. H, W.&N.W. Sur. Show gas and oil 4,200-08 ft.; drlg. 4,310 ft.

Gray County

Iverson et al No. 1 McKinney, sec. 137, Blk. 2, I.&G.N. Sur. T.P. 3,240 ft.; shot; T.D. 3,276 ft.; swabbed 480 bbls. in 24 hrs.

K. Kinsey No. 1 Stephens, sec. 187, Blk. N and 1,900 ft. from E, sec. 546, Blk. H, B-2, H.&G.N. Sur. T.D. 2,475 ft.; swedging csg.

Saulsbury Oil Co. No. 1 Husted, C W¼ sec. 116, Blk. B-2, H.&G.N. Sur. Fishing 2,733 ft.

Hartley County

O. V. Beck et al No. 1-A Matador Ranch, sec. 20, Blk. 22, C.S.S. Sur. Pipe stuck 4,600 ft.

Hutchinson County

Phillips Pet. Co. No. 1 Bryan, sec. 6, Blk. M-21, T.C. Ry. Sur. Drlg. 600 ft.

Power Pet. Co. No. 1 Hodges, sec. 16, Blk. M-35, T.C. Sur. Top pay 3,050 ft.; shot; swabbed 120 bbls. oil and 20 bbls. water in 12 hrs.

L. L. Travis et al No. 1 Hodges, sec. 14, Blk. X-02, H.O.&B. Sur. Drlg. 1,827 ft.

Moore County

Shamrock O. & G. Co. No. 1 Ryan-Jones, sec. 190, Blk. 3-T, T.&N.O. Sur. T.D. 3,331 ft.; running csg.; tested 50,000,000 ft. gas.

Wheeler County

Allender & Heare No. 1 Harvey, sec. 67, Blk. 13, H.&G.N. Sur. C.O. 2,186 ft.

Ben G. Barnett No. 1 Stewart, sec. 73, Blk. 13, H.&G.N. Sur. S.D. 2,136 ft.

Dumas O. & G. Co. No. 1 Slavik, sec. 108, Blk. 23, H.&G.N. Sur. Drlg. 1,932 ft.

Johnston et al No. 1 Rabo, sec. 105, Blk. 23, H.&G.N. Sur. Spudded and S.D.

Phillips Pet. Co. No. 1 Porter, sec. 35, Blk. A-8, H.&G.N. Sur. Drlg. 2,137 ft.

Smith Bros. No. 1 Woodward, sec. 23, Blk. 24, H.&G.N. Sur. S.D. 2,240 ft.

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil Co., No. 11 Capitan, Santa Barbara Co.	32- 4-30	2,187	sd. sh. drlg.
Shell Oil Co., No. 12 Capitan, Santa Barbara Co.	32- 4-30	1,332	sd. sh. drlg.
Shell Oil Co., No. 13 Capitan, Santa Barbara Co.	32- 4-30	....	bldg. rig
Honolulu Oil Corp., No. 9 Elwood, Santa Barbara Co.	tideland	6,575	gr. sd. drlg.
Barnsdall-Rio Grande, No. 9-B Elwood, Santa Barbara	tideland	3,415	cleaning out
Barnsdall-Rio Grande, No. 12 Elwood, Santa Barbara	15- 4-29	8,197	sd. sh. drlg.
Pacific Western Oil Co., No. 4 Elwood, Santa Barbara	tideland	3,608	will redrl.
Signal Oil Co., No. 7 Elwood, Santa Barbara Co.	tideland	3,284	hd. sh. drlg.
York Oil Co., No. 1 Lompoc, Santa Barbara Co.	33- 8-34	....	bldg. rig
Union Oil Co., No. 1 Santa Maria, Santa Barbara Co.	24-10-34	2,476	br. sh. drlg.
Fairview Oil Co., No. 1 Purisima, Santa Barbara Co.	18- 7-34	4,060	fish. D.C. & B.
Santa Barbara Oil, No. 1 Carpinteria, Santa Barbara	29- 4-25	2,290	P.B. 1,950
Bankline Oil Co., No. 1 Coal Oil Point, Santa Barbara	tideland	5,510	will redrl.
Union Oil Co., No. 1 Sudden, Santa Barbara Co.	10- 5-35	1,241	sd. sh. drlg.
Anacopa Oil Co., No. 4 Mesa, Santa Barbara Co.	28- 4-27	....	rigging up
Calco Pet. Co., No. 1 Las Posas, Ventura Co.	17- 3-20	2,606	rig cable tools
Duke Oil Co., No. 1 Bardsdale, Ventura Co.	7- 3-19	3,097	sd. sh. drlg.
Bankline Oil Co., No. 1 Sespe, Ventura Co.	36- 5-20	2,120	hd. sd. drlg.
Ivers, H. A., No. 12 Sespe, Ventura Co.	1- 4-20	1,765	hd. sd. drlg.
Laing & Jacobs, No. 1 Shiells Canyon, Ventura Co.	32- 4-19	1,275	redrlg. 1,190
El Rancho Oil Co., No. 1 Shiells Canyon, Ventura Co.	9- 3-19	4,041	cmtd. 4,010
Bestco Pet. Co., No. 1 Shiells Canyon, Ventura Co.	2- 3-19	418	sd. sh. drlg.
Bankline Oil Co., No. 1 Shiells Canyon, Ventura Co.	3- 3-19	3,996	form. test
Petroleum Securities, No. 1 Shiells Canyon, Ventura Co.	3- 3-19	....	rigging up
The Texas Co., No. 129 Shiells Canyon, Ventura Co.	4- 3-19	3,940	sd. sh. drlg.
Hull, James, No. 1 Santa Susana, Ventura Co.	2- 2-18	1,500	cleaning out
Bolsa Chica Oil Co., No. 3 Temescal, Ventura Co.	4- 4-18	696	br. sh. drlg.
Argood & Johnson, No. 1 Temescal, Ventura Co.	21- 4-18	631	sd. sh. drlg.
Dawson Oil Co., No. 1 Simi, Ventura Co.	5- 2-17	2,876	dry; abd.
Stella, E. F., No. 1 Simi, Ventura Co.	6- 2-17	1,152	gr. sh. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30- 3-22	7,078	P.B. 6,435
General Pet. Corp., No. 2 Oxnard, Ventura Co.	26- 2-23	3,571	sd. sh. drlg.
General Pet. Corp., No. 4 Rincon, Ventura Co.	tideland	3,198	sd. sh. drlg.
Rincon Oil Co., No. 3 Rincon, Ventura Co.	tideland	952	sd. sh. drlg.
Continental Oil Co., No. 5 San Miguelito, Ventura Co.	24- 3-24	....	rigging up
Continental Oil Co., No. 1 Javon, Ventura Co.	15- 3-24	5,501	flow, 535 b.d.
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-26	6,340	hd. sd. drlg.
Belmac Drlg. Co., No. 1 McKittrick, Kern Co.	22-29-21	4,797	fish. D.P.
Calcrude Pet. Co., No. 1 McKittrick, Kern Co.	34-30-22	....	rigging up
Franco-Western Oil Co., No. 12 McKittrick, Kern Co.	4-30-22	1,121	sd. sh. drlg.
Bergman Oil Co., No. 1 McKittrick, Kern Co.	33-29-22	....	rigging up
Standard Oil Co., No. 4 North Belridge, Kern Co.	36-27-20	4,931	br. sh. drlg.
Belridge Oil Co., No. 18-35 North Belridge, Kern Co.	35-27-20	5,383	cmtd. 5,351
Belridge Oil Co., No. 6-1 North Belridge, Kern Co.	1-28-28	7,640	hd. sh. drlg.
Belridge Oil Co., No. 17-35 North Belridge, Kern Co.	35-27-20	4,685	sd. sh. drlg.
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-20	9,492	P.B. 9,840
Union Oil Co., No. 21 North Belridge, Kern Co.	36-27-20	2,976	sd. sh. drlg.
Continental Oil Co., No. 7 North Belridge, Kern Co.	35-27-20	6,060	sd. sh. drlg.
Alford, J. W., No. 1 Deiano, Kern Co.	14-25-27	2,440	fish. D. P.
C. C. M. Oil Co., No. 15 Kern Front, Kern Co.	23-28-27	2,180	sd. sh. drlg.
Republic Pet. Co., No. 8 Kern Front, Kern Co.	11-28-27	1,431	sd. sh. drlg.
Republic Pet. Co., No. 9 Kern Front, Kern Co.	24-28-27	....	rigging up
L. & H. Prop., Inc., No. 1 Kern Front, Kern Co.	13-28-27	....	bldg. rig
General Pet. Corp., No. 5 Kern Front, Kern Co.	14-28-27	1,491	sd. sh. drlg.
Kern River Oilfields, No. 7 Kern Front, Kern Co.	25-28-27	....	bldg. rig
Webber, T. A., No. 1 Kern Front, Kern Co.	16-28-27	985	sd. sh. drlg.
Associated Oil Co., No. 6 Kern Front, Kern Co.	4-28-27	....	rigging up
Standard Oil Co., No. 11 Kern Front, Kern Co.	5-28-27	2,584	cmtd. 2,493
Standard Oil Co., No. 12 Kern Front, Kern Co.	5-28-27	....	bldg. rig
Standard Oil Co., No. 13 Kern Front, Kern Co.	24-28-27	891	sd. sh. drlg.
The Texas Co., No. 14 Kern Front, Kern Co.	23-28-27	2,023	completing
The Texas Co., No. 15 Kern Front, Kern Co.	23-28-27	....	bldg. rig
Vega Oil Co., No. 2 Kern Front, Kern Co.	11-28-27	....	location
Ausbrit Oil Co., No. 1 Premier, Kern Co.	20-27-27	2,139	cmtd.
Santa Caria Oil Co., No. 1 Mount Poso, Kern Co.	7-26-28	1,660	sd. sh. drlg.
General Petroleum, No. 17 Mount Poso, Kern Co.	16-27-28	1,813	rig to pump
Vanguard Oil Co., No. 4 Mount Poso, Kern Co.	33-27-28	....	rigging up
Cal. Coast-Apex Oil Co., No. 1 Mount Poso, Kern Co.	36-26-27	....	rigging up
Poso Petroleum Co., No. 1 Mount Poso, Kern Co.	2-27-27	1,095	sd. sh. drlg.
Santa Anita Oil Co., No. 1 Mount Poso, Kern Co.	11-27-27	....	rigging up
Woods & Bailey, No. 1 McFarland, Kern Co	16-26-26	3,295	cleaning out
Dixie Lee Oil Co., No. 2 Fruitvale, Kern Co.	23-29-27	....	bldg. rig

Moschbach Oil Co., No. 1 Fruitvale, Kern Co.	21-29-27	....	bldg. rig
Mayo, Luther, No. 1 Fruitvale, Kern Co.	21-29-27	4,102	resume work
Magnet Oil Co., No. 1 Fruitvale, Kern Co.	21-29-27	2,683	sd. sh. drlg.
H. L. J. Oil Co., No. 1 Fruitvale, Kern Co.	23-29-27	....	rigging up
Western Gulf Oil Co., No. 22 Fruitvale, Kern Co.	22-29-27	971	sd. sh. drlg.
Western Gulf Oil Co., No. 23 Fruitvale, Kern Co.	27-29-27	3,260	sd. sh. drlg.
Mohawk Oil Co., No. 10 Fruitvale, Kern Co.	23-29-27	1,671	sd. sh. drlg.
North American, No. 1 Mountain View, Kern Co.	5-31-29	6,430	will P.B.
Hogan Pet. Co., No. 10 Mountain View, Kern Co.	29-30-29	6,049	looks wet
Hogan Pet. Co., No. 11 Mountain View, Kern Co.	32-30-29	5,369	sd. sh. drlg.
Hogan Pet. Co., No. 12 Mountain View, Kern Co.	32-30-29	1,381	sd. sh. drlg.
Hogan Pet. Co., No. 13 Mountain View, Kern Co.	32-30-29	....	rig; susp.
Buffalo Oil Co., No. 2 Mountain View, Kern Co.	19-30-29	761	sd. sh. drlg.
Sheldon Oil Corp., No. 1 Mountain View, Kern Co.	19-30-29	5,150	pump. 191 b.d.
Wood-Callahan Oil Co., No. 2 Mountain View, Kern	25-30-28	6,048	O.S. drlg.
Mohawk Oil Co., No. 16 Mountain View, Kern Co.	30-30-29	6,035	fish. D.P.
Mohawk Oil Co., No. 18 Mountain View, Kern Co.	30-30-29	4,750	sd. sh. drlg.
Mohawk Oil Co., No. 19 Mountain View, Kern Co.	30-30-29	....	rig; susp.
Ohio Oil Co., No. 3 Mountain View, Kern Co.	33-30-29	5,159	redrlg. 3,960
Allied Pet. Corp., No. 1 Mountain View, Kern Co.	19-30-29	4,850	sd. sh. drlg.
Treasure Oil Co., No. 1 Mountain View, Kern Co.	13-30-28	....	rigged up
Shell Oil Co., No. 7 Mountain View, Kern Co.	32-30-29	6,050	P.B. 5,926
Shell Oil Co., No. 8 Mountain View, Kern Co.	32-30-29	5,200	recmtd. 4,976
Shell Oil Co., No. 9 Mountain View, Kern Co.	32-30-29	3,351	sd. sh. drlg.
Shell Oil Co., No. 10 Mountain View, Kern Co.	32-30-29	3,297	sd. sh. drlg.
Shell Oil Co., No. 11 Mountain View, Kern Co.	32-30-29	....	rigging up
Standard Oil Co., No. 23 Mountain View, Kern Co.	13-30-28	5,798	sd. sh. drlg.
Standard Oil Co., No. 24 Mountain View, Kern Co.	13-30-28	5,285	cleaning out
Standard Oil Co., No. 25 Mountain View, Kern Co.	13-30-28	5,260	cleaning out
Standard Oil Co., No. 26 Mountain View, Kern Co.	13-30-28	....	bldg. rig
Jergins Trust, No. 5 Mountain View, Kern Co.	24-30-28	5,960	pump. 61 b.d.
Ohio Oil Co., No. 1 Rio Bravo, Kern Co.	1-30-28	3,692	sd. sh. drlg.
Shell Oil Co., No. 1 Stevens, Kern Co.	29-30-26	7,252	sd. sh. drlg.
Shell Oil Co., No. 11 Round Mountain, Kern Co.	7-28-29	1,780	pump. 120 b.d.
Helm & Pruitt, No. 1 Round Mountain, Kern Co.	17-28-29	1,552	sd. sh. drlg.
Round Mountain Oil Co., No. 2 Round Mountain, Kern	19-28-29	....	bldg. rig
California Western Oil, No. 9 Round Mountain, Kern	7-28-29	1,587	completing
Barnsdall Oil Co., No. 4 Round Mountain, Kern Co.	7-28-29	1,884	pump. 295 b.d.
Barnsdall Oil Co., No. 5 Round Mountain, Kern Co.	7-28-29	....	location
Honolulu Oil Corp., No. 13 Round Mountain, Kern Co.	18-28-29	1,948	rig to pump
Honolulu Oil Corp., No. 24 Round Mountain, Kern Co.	20-28-29	1,171	sd. sh. drlg.
Bauer Oil Co., No. 1 Edison, Kern Co.	21-30-29	3,194	completing
M. & L. Oil Co., No. 1 Edward, Kern Co.	23-30-29	2,048	cleaning out
Jergins Trust, No. 21 Edison, Kern Co.	14-30-29	3,181	sd. sh. drlg.
Jergins Trust, No. 22 Edison, Kern Co.	22-30-29	2,796	sd. sh. drlg.
Jergins Trust, No. 23 Edison, Kern Co.	23-30-29	1,831	sd. sh. drlg.
Buckeye Union Oil Co., No. 1 Edison, Kern Co.	22-30-29	2,987	gr. sd. drlg.
Corbett, R. E., No. 1 Edison, Kern Co.	23-30-29	2,087	O.S. drlg.
Whittier-Santa Fe Oil Co., No. 1 Edison, Kern Co.	21-30-29	2,985	sd. sh. drlg.
Monterey Expl. Co., No. 5 Edison, Kern Co.	14-30-29	2,699	P.B. 1,750
The Texas Co., No. 1 Edison, Kern Co.	23-30-29	....	rigged up
General Pet., No. 14 Edison, Kern Co.	24-30-29	1,458	recmtd. 1,370
General Pet. Corp., No. 1 Elk Hills, Kern Co.	5-30-24	5,974	sd. sh. drlg.
American Pacific Oil Co., No. 1 San Emidio, Kern Co.	18-10-23	....	rigging up
General Pet. Corp., No. 1 Maricopa, Kern Co.	6-11-23	....	rigging up
Standard Oil Co., No. 24 Midway-Sunset, Kern Co.	36-12-24	2,201	cleaning out
Standard Oil Co., No. 25 Midway-Sunset, Kern Co.	36-12-24	2,106	cleaning out
Standard Oil Co., No. 65 Midway-Sunset, Kern Co.	36-12-24	1,131	sd. sh. drlg.
Standard Oil Co., No. 219 Midway-Sunset, Kern Co.	33-32-24	....	bldg. rig
Alford Oil Co., No. 4 Maricopa, Kern Co.	25-12-24	1,986	sd. sh. drlg.
Hallmark Oil Co., No. 4 Maricopa, Kern Co.	25-12-24	2,808	pump. 420 b.d.
Cal-Com'l Oil Co., No. 9 Midway-Sunset, Kern Co.	26-32-23	1,697	cleaning out
McAdams, Ed., No. 1 Midway-Sunset, Kern Co.	23-32-23	....	bldg. rig
Obispo Oil Co., No. 12 Midway-Sunset, Kern Co.	32-12-23	....	bldg. rig
Pet. Drlg. & Expl. Co., No. 2 Maricopa, Kern Co.	25-12-24	2,396	cmtd. 2,320
Jerman, R. W., No. 1 Midway-Sunset, Kern Co.	31-12-23	2,276	O.S. drlg.
Evans, H. B., No. 12 Midway, Kern Co.	35-32-23	2,087	sd. sh. drlg.
Ohio Oil Co., No. 6 Buena Vista Lake, Kern Co.	32-31-26	....	rigging up
Superior Oil Co., No. 1 Buena Vista Lake, Kern Co.	6-32-25	3,271	sd. sh. drlg.
Reserve Oil Co., No. 1 Tejon, Kern Co.	33-11-19	6,032	cmtd. 4,705
Seaboard Oil Co., No. 4 Huron, Fresno Co.	10-16-13	....	rigging up
Western Gulf, No. 3 Cantua, Fresno Co.	3-17-15	....	bldg. rig
Conlon, J. M., No. 1 Coalinga, Fresno Co.	30-19-15	796	sd. sh. drlg.
Standard Oil Co., No. 1 South Coalinga, Fresno Co.	36-21-14	....	bldg. rig
Union Oil Co., No. 1 Lillis-Welsh, Fresno Co.	24-21-16	11,127	P.B. 10,729
K. N. D. A., No. 2 Kettleman North, Fresno Co.	20-21-17	4,896	sd. sh. drlg.
K. N. D. A., No. 43 Kettleman North, Fresno Co.	19-21-17	....	bldg. rig
K. N. D. A., No. 54 Kettleman North, Fresno Co.	24-21-16	8,838	P.B. 8,818
K. N. D. A., No. 74 Kettleman North, Fresno Co.	30-21-17	....	rigged up
K. N. D. A., No. 36 Kettleman North, Kings Co.	36-22-18	9,733	cleaning out
K. N. D. A., No. 54 Kettleman North, Kings Co.	26-22-18	8,364	gr. sd. drlg.
Standard Oil Co., No. 25 Kettleman North, Fresno Co.	19-21-17	....	bldg. rig
Standard Oil Co., No. 65 Kettleman North, Fresno Co.	19-21-17	....	bldg. rig
Standard Oil Co., No. 72 Kettleman North, Fresno Co.	19-21-17	....	rigging up
Standard Oil Co., No. 3 Kettleman Middle, Kings Co.	29-23-19	8,113	milling
Petroleum Securities, No. 2 Kettleman Middle, Kings	30-23-18	9,332	repair csg.
Royalty Service Corp., No. 1 Pyramid Hills, Kings Co.	16-24-18	3,880	sd. sh. drlg.
Pismo Pet. Corp., No. 1 Pismo, San Luis Obispo Co.	5-32-13	....	rigging up
Emerich Oil Co., No. 1 Cholame, San Luis Obispo Co.	22-32-22	1,906	C.C. 1,853
United Oil Co., No. 1 Cholame, San Luis Obispo Co.	2-32-21	371	sd. drlg.
Willett, O. L., No. 1 San Luis, San Luis Obispo Co.	27-26-13	....	rig; susp.
Commonwealth Consd Gas, No. 1 Tulare Lake, Kings	21-22-20	2,490	gas; shut in
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings	21-22-20	2,495	sd. sh. drlg.
Union-Hancock, No. 1 Tulare Lake, Kings Co.	28-22-20	3,992	form. test
Amerada Pet., No. 7 Tracy, San Joaquin Co.	15- 2-5	4,941	sd. sh. drlg.
Standard Oil Co., No. 1 McDonald Island, San Joaquin	25- 2-4	931	sd. sh. drlg.
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	gas; shut in
Pure Oil Co., No. 2 Chowchilla, Madera Co.	8-16-14	2,606	gas; shut in
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24-3	7,050	sd. sh. drlg.
Shell Oil Co., No. 1 Branch, Monterey Co.	34-24-10	7,373	sd. sh. drlg.
The Texas Co., No. 3 Eureka, Humboldt Co.	22- 3-1	2,950	sd. sh. drlg.

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Republic Pet. Co., No. 2 El Segundo, Los Angeles Co.	13- 3-14	6,954	sd. sh. drlg.
Marvin, J. L., No. 1 El Segundo, Los Angeles Co.	7- 3-14	6,879	sd. sh. drlg.
Cone Oil Co., No. 1 Lawndale, Los Angeles Co.	20- 3-14	5,664	sd. sh. drlg.
Shell Oil Co., No. 1 Moneta, Los Angeles Co.	33- 3-14	5,970	sd. sh. drlg.
McDowell, O. B., No. 1 Torrance, Los Angeles Co.	35- 3-14	4,625	suspended
Big Ben Oil Co., No. 1 Hermosa, Los Angeles Co.	31- 3-14	....	bldg. rig
Sioux Oil Co., No. 1 Hermosa, Los Angeles Co.	31- 3-14	....	bldg. rig
White Five Oil Co., No. 1 Hermosa, Los Angeles Co.	31- 3-14	3,880	testing
Linderman, G. K., No. 1 Hermosa, Los Angeles Co.	31- 3-14	....	bldg. rig
Sterling Oil Co., No. 1 Hermosa, Los Angeles Co.	31- 3-14	3,902	cleaning out
Dumas-Lewis Oil Co., No. 2 Redondo, Los Angeles Co.	6- 4-14	....	bldg. rig
B. & N. Oil Co., No. 1 Redondo, Los Angeles Co.	18- 4-14	2,673	sd. sh. drlg.
Redondo Oil Corp., No. 1 Redondo, Los Angeles Co.	31- 3-14	....	bldg. rig
Rennek Oil & Gas Co., No. 1 Redondo, Los Angeles Co.	8- 4-12	2,333	sd. sh. drlg.
C. C. M. Oil Co., No. 23 Torrance, Los Angeles Co.	8- 4-14	4,660	sd. sh. drlg.
West American Oil Co., No. 1 Dominguez, Los Angeles	3- 4-13	7,430	sd. sh. drlg.
Shell Oil Co., No. 1 Long Beach, Los Angeles Co.	13- 4-13	6,035	redrlg. 5,092
Barnsdall Oil Co., No. 15 Rosecrans, Los Angeles Co.	18- 3-13	4,955	will redrl.
Mars Oil Co., No. 1 Athens, Los Angeles Co.	7- 3-13	4,850	redrlg. 3,520
Continental Oil Co., No. 28 Seal Beach, Los Angeles	8- 5-12	6,070	O.S. drlg.
Standard Oil Co., No. 27 Seal Beach, Los Angeles Co.	8- 5-12	1,262	sd. sh. drlg.
Engler & Long, No. 1 Artesia, Los Angeles Co.	25- 3-12	5,588	will P.B.
Davis & Lewis, No. 1 Artesia, Los Angeles Co.	25- 3-12	....	rig; susp.
Clayton, C. L., No. 1 Long Beach, Los Angeles Co.	31- 3-12	6,765	P.B. 4,760
Standard Oil Co., No. 17 Inglewood Deep, Los Angeles	8- 2-14	1,631	sd. sh. drlg.
Ohio Oil Co., No. 18 Del Rey, Los Angeles Co.	22- 2-15	6,164	sd. sh. drlg.
Eastern Oil Co., No. 1 Del Rey, Los Angeles Co.	22- 2-15	6,372	sd. sh. drlg.
Royalty Service Corp., No. 6 Del Rey, Los Angeles Co.	23- 2-15	5,850	sd. sh. drlg.
Herndon Dev. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,623	cleaning out
Union Oil Co., No. 21 Del Rey, Los Angeles Co.	27- 2-15	....	rigging up
Yant Pet. Corp., No. 1 Newhall, Los Angeles Co.	1- 3-16	1,762	suspended
Yant Pet. Corp., No. 2 Newhall, Los Angeles Co.	36- 4-16	....	rigged up
Eyer Pet. Co., No. 1 Compton, Los Angeles Co.	20- 4-13	3,794	cmtd. 3,608
Sovereign Oil Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	....	rigging up
Cordi Oil Co., No. 1 Wilmington, Los Angeles Co.	29- 4-13	....	bldg. rig
Standard Oil Co., No. 79 Montebello, Los Angeles Co.	2- 2-12	5,380	sd. sh. drlg.
Standard Oil Co., No. 81 Montebello, Los Angeles Co.	2- 2-12	2,791	hd. sd. drlg.
Standard Oil Co., No. 82 Montebello, Los Angeles Co.	2- 2-12	6,560	sd. sh. drlg.
Standard Oil Co., No. 83 Montebello, Los Angeles Co.	2- 2-12	2,690	sd. sh. drlg.
Standard Oil Co., No. 84 Montebello, Los Angeles Co.	2- 2-12	2,721	sd. sh. drlg.
Butler, C. R., No. 1 Montebello, Los Angeles Co.	14- 2-10	4,080	form. test
Womac, Inc., No. 3 Montebello, Los Angeles Co.	4- 2-11	3,120	sd. sh. drlg.
Woodward, J. A., No. 1 Montebello, Los Angeles Co.	4- 2-11	3,195	sd. sh. drlg.
The Texas Co., No. 13 Montebello, Los Angeles Co.	5- 2-11	7,312	P.B. 6,886
Universal Consd., No. 4 Montebello, Los Angeles Co.	5- 2-11	7,435	will P.B.
Universal Consd., No. 6 Montebello, Los Angeles Co.	5- 2-11	1,863	sd. sh. drlg.
Wilshire Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	6,352	redrlg. 5,425
Richfield Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	3,471	sd. sh. drlg.
Richfield Oil Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	....	rigging up
North American, No. 2 Montebello, Los Angeles Co.	5- 2-11	3,694	sd. sh. drlg.
St. Helens Pet. Co., No. 7 Montebello, Los Angeles Co.	5- 2-11	....	rigging up
Oil & Gas Associates, No. 1 Pico, Los Angeles Co.	9- 2-11	3,867	milling
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5-5	2,215	hd. sd. drlg.
Stevens, F. E., No. 1 Corona, Riverside Co.	27- 3-7	....	rigging up
Commander Oil Co., No. 1 Newport, Orange Co.	29- 6-10	956	sd. sh. drlg.
Twentieth Century Oil Co., No. 1 Huntington, Orange	26- 5-11	5,170	P.B. 4,495
Hillman & Long, No. 1 Westminister, Orange Co.	14- 5-11	4,467	sd. sh. drlg.
Standard Oil Co., No. 1 Anaheim, Orange Co.	36- 3-9	2,714	pump. 10 b.d.
Union Oil Co., No. 29 Chapman Richfield, Orange Co.	30- 3-9	1,853	sd. sh. drlg.
Continental Oil Co., No. 1 Yorba, Orange Co.	21- 3-9	3,400	sd. sh. drlg.

S. W. TEXAS PROVEN

Week Ending March 28

Dirks—Bee County

Devonian Oil Co. No. 4 Young, O'Brien Sur. Sd. 3,763-3,821 ft.; set csg.; W.O.C.

Heyser, Heard & Walton No. 12 Young. 220 ft. NW No. 4, F. Rawlins Sur., Abst. 290. Sd. 3,790-3,841 ft.; comp.; 16 B.P.H. on ¼-in. choke.

Sun Oil Co. No. 6 Page, 330 ft. SE line, 630 ft. NE line, Young Sur. R.U.

Texas Co. No. 18 Young, Butler Sur. Set csg. 3,910 ft.; W.O.C.

Pettus—Bee County

United Prod. Co. No. 52 Ray, T. Hanson Sur. Drlg. 3,785 ft.

Plummer—Bee County

C. Echols No. 1 Plummer, 391 ft. SW line, 150 ft. SE line, F. J. Chessman Sur. Cg. 3,021 ft.

Ray—Bee County

California Co. No. 1 Boothe, 330 ft. S and E lines, 100-ac. tr., Walker Sur. R.U.

Duncan & Perkins No. 2-A Campbell, B.& B. Sur. Comp.; no gauge; T.D. 3,780 ft.

Magnolia Pet. Co. No. 1 Booth, W. B. Blanchard Sur. Testing 3,927 ft.

Sunburst Oil Co. No. 2 Boothe, 660 ft. W of No. 1, 150 ft. NE line tr. R.U.

Dale—Caldwell County

Ogden & Reed No. 2 Vickery, 550 ft. NE line, S. Damon Sur. T.D. 1,923 ft.; Serp.; S.O.

Salt Flat—Caldwell County

Witherspoon Oil Co. No. 1 Tiller, 175 ft. N and W lines tract, G. Hinds Sur. T.D. 2,595 ft.; acidising.

Eagle Hill—Duval County

Marzo Oil Co. No. 2 Harlet, 480 ft. E of No. 1, Sur. 6. T.D. 2,290 ft.; S.D.; repairs.

Government Wells Pool—Duval County

Central Producers, Inc., No. 3 Luptack, 150 ft. S line, 990 ft. E line, Sur. 41. No report.

Hoffman—Duval County

Duval Oil Corp. No. 2 Ruiz, 330 ft. S and W lines, Sur. 119. Drlg. 2,500 ft.

Hamill & Smith No. 1 B.C.C., 330 ft. N and E lines, NW¼ NE¼ Sur. 70. Drlg. 800 ft.

Plymouth Oil Co. No. 2 Cuellar, 330 ft. NW and NE lines tr., Sur. 117. T.D. 3,-885 ft.; flowing 100 B.P.D.; fluid 60% oil.

Rogers & Rogers No. 2 Sutherland, 1,070 ft. S and E lines, E½ Sur. 120. Drlg. 1,-021 ft.

Rogers & Rogers Drlg. Co. No. 2 Hoffman. 380 ft. E line, 1,698.5 ft. S line, 640-ac. tr., Sur. 118. T.D. 3,695 ft.; P.B. Government Wells sd. to comp. as gasser.

Standard Oil Co. of Kansas, 330 ft. SW of N line, 80-ac. tr., Sur. 118. Drlg. 1,-297 ft.

Loma Novia—Duval County

Bridwell Oil Co. No. 8 B.C.C., 330 ft. W line, 990 ft. S line, SW¼, Sur. 76. Set csg. on sd.; W.O.C.

Bridwell Oil Co. No. 15 B.C.C., Sur. 76. M.I.M.

Bridwell Oil Co. No. 2-C Hubbard, Sur. 75. T.D. 2,568 ft.; testing.

Bridwell Oil Co. No. 2-C Hubbard, 330 ft. N and E lines, SW¼, Sur. 75. Cg. 2,-570 ft.

Bridwell Oil Co. No. 3-C Hubbard, 330 ft. S and E lines, NW¼, Sur. 75. Spudding in.

Bridwell Oil Co. No. 13-C Hubbard, 330 ft. N and W lines, Sur. 75. Spudding in.

Duval Oil Corp. No. 15 B.C.C., 660 ft. N and E lines, N½, S½, Sur. 59. Sd. 2,537-53 ft.; drlg. plugs.

Duval Oil Corp. No. 16 B.C.C., 330 ft. N line, 1,650 ft. E line, S½, N½, Sur. 59. T.D. 2,536 ft.; comp.; no gauge.

Frank Gravis No. 3 Flodin, Sur. 78. Set csg. 2,551 ft.; W.O.C.

Highland Oil Co. No. 16 Hubbard, W½, Sur. 72. Sd. 2,736-42 ft.; testing.

Highland Oil Co. No. 17 Hubbard, 990 ft. W line, 1,650 ft. N line, W½ Sur. 72. Sand 2,745-51 ft.; testing.

Highland Oil Co. No. 28 Hubbard, W½, Sur. 72. Sd. 2,734-81 ft.; testing.

Highland Oil Co. No. 6-D Hahl, sec. 68. Sand 2,576-87 ft.; W.O.C.

Humble O. & R. Co. No. 9-A Hubbard, Sur. 84. Set csg.; W.O.C.; T.D. 2,827 ft.

Humble O. & R. Co. No. 6-B Hubbard, 990 ft. N and E lines, Sur. 83. Drlg. 1,-100 ft.

Humble O. & R. Co. No. 7-B Hubbard, Sur. 83. Comp.; 17.93 B.P.H. on ¼-in. choke; T.D. 2,767 ft.

Humble O. & R. Co. No. 7-C Hubbard, Sur. 72. T.D. 2,710 ft. swbg.

Humble O. & R. Co. No. 34-B Hubbard, Sur. 72. Sd. 2,724-37 ft.; comp.; 24.59 B.P.H. on ½-in. choke.

Humble O. & R. Co. No. 36-B Hubbard, 272 ft. W line, 330 ft. N line, E½, Sur. 72. R.U.

Kaffie Lbr. Co. No. 1 M. H. Davidson, Sur. 114. Sd. 2,544-55 ft.; W.O.C.

Magnolia Pet. Co. No. 23 Hahl, Sur. 67. Comp.; 18 B.P.H. on ½-in. choke; T.D. 2,700 ft.

Magnolia Pet. Co. No. 24 Hahl, Sur. 67. Drlg. 2,100 ft.

Magnolia Pet. Co. No. 25 Hahl, Sur. 67. Comp.; 10 B.P.H. on ½-in. choke; T.D. 2,691 ft.

Montour Prod Co. No. 7 Hubbard, 1,650 ft. E line, 330 ft. N line, S½ NE¼, Sur. 75. T.D. 2,844 ft.; comp.; 15 B.P.D.

Hiram Reed and J. T. Stover No. 1 C. W. Duke, 330 ft. N and E lines, SE¼ SE¼ Sur. 64. Drlg. 1,923 ft.

Reynosa Oil Co. No. 2-A Davidson, NE¼, Sur. 114. Sd. 2,570-92 ft.; comp.; 10 B. P.H. on ½-in. choke.

Reynosa Oil Co. No. 1 Hubbard, Sur. 75. Drlg. 1,021 ft.

Rosan Oil Co. No. 10 Hubbard 990 ft. S line, 1,650 ft. W line, Sur. 84. Comp.; 50 B.P.H.; T.D. 2,823 ft.

Rosan Texia Oil Co. No. 13 Hubbard, 810 ft. W line, 330 ft. N line, S½, Sur. 84. Drlg. 663 ft.

Russ Pet. Co. No. 7-D Hahl, 330 ft. E line, 990 ft. S line, NE¼ Sur. 63. Testing 2,553-67 ft.

Shell Pet. Corp. No. 1 Mendosa, 330 ft. S and W lines, Sur. 58. Comp.; 20 B.P. H.; open tbg.; T.D. 2,813 ft.

Shell Pet. Corp. No. 2 Mendosa, 704 ft. N of No. 1, 330 ft. W line tr., Sur. 69. Drlg. sh. 1,615 ft.

Sun Oil Co. No. 2 Hubbard, Sur. 84. Comp.; 13 B.P.H. on ½-in. choke; T.D. 2,820 ft.

Texas Co. No. 12 B.C.C., 990 ft. E line, 330 ft. S line, N½ sec. 59. Drlg. 1,863 ft.

Texas Co. No. 20 Wendt, 330 ft. N line, 2,080 ft. W line, Sur. 68. Comp.; 4 B.P. H.; T.D. 2,720 ft.

Texas Co. No. 21 Wendt. 330 ft. N line, 3,481 ft. W line, Sur. 68. Set sur. csg.; W.O.C.

Texas Co. No. 25 Wendt, Sur. 68. Sd. 2,-713-44 ft.; comp.; 75 B.P.D.; T.D. 2,-744 ft.

Texas Co. No. 26 Wendt. Sur. 68. Comp.; 6 B.P.H.; T.D. 2,746 ft.

Texas Co. No. 31 Wendt, 1,176 ft. S line, 2,778 ft. E line tr., Sur. 68. Drlg. 2,-078 ft.

Valley Osage Oil Co. No. 7 Hubbard, Sur. 75. Sd. 2,590-2,601 ft.; testing.

Valley Osage Oil Co. No. 8 Hubbard, 330 ft. W line, 990 ft. N line, Sur. 75. Sd. 2,562-66 ft.; comp.; 20 B.P.H. on ½-in. choke.

Piedra Lumbre—Duval County

Magnolia Pet. Co. No. 8 D.C.R.C., 990 ft. S and E lines, Sur. 100. Comp.; 7 B.P. H.; T.D. 1,969 ft.

Texas Co. No. 14 D.C.R.C., SW¼ Sur. 100. Comp.; 12 B.P.H.; T.D. 1,973 ft.

Texas Co. No. 15 D.C.R.C., 330 ft. S line, 990 ft. E line, SW¼, Sur. 100. R.U.

Seven Sisters—Duval County

Atlantic Oil Prod. Co. No. 2-D Welder, 660 ft. W No. 1, 330 ft. E line, Sur. 113. Sd. 2,490-2,505 ft.; set csg.; W.O.C.

Atlantic Oil Prod. Co. No. 3-D Welder, 660 ft. SW No. 1, 330 ft. N line, Sur. 113. Sd. 2,495-2,509 ft.; set csg.; W.O.C.

Atlantic Oil Prod. Co. No. 1-E Welder, Sur. 281. Comp. on pump; T.D. 2,439 ft.

Buchanan & Blanco Oil Co. No. 10 Welder, 330 ft. W line, 415 ft. S line, E¼ SW¼ Sur. 385. Flowing in pits; no gauge; T.D. 2,506 ft.

Buchanan & Blanco Oil Co. No. 11 Welder, 330 ft. E line, 915 ft. S line, E½ SW¼ Sur. 385. Sd. 2,195-2,211 ft.; flowing in pits.

Diamond Halff Oil Co. No. 3 Serna, 990 ft. E line, 330 ft. S line, N½, NE¼, Sur. 384. Drlg. 1,635 ft.

Parr Oil Co. No. 2 Welder, 990 ft. W line, 330 ft. N line, 80-ac. tr., Sur. 383. Drlg. 1,270 ft.

Humble O. & R. Co. No. 2 Badgley, 330

ft. N line, 990 ft. W line, Sur. 307. Drlg. sh. 1,780 ft.

Humble O. & R. Co. No. 6-B Serna, SE¼, Sur. 384. T.D. 2,503 ft.; flowing in pits.

Humble O. & R. Co. No. 7-B Serna, SE¼, Sur. 384. M.I.M.

Humble O. & R. Co. No. 8-A Serna, SW¼ Sur. 384. Comp.; 30 B.P.H. on ½-in. choke; T.D. 2,471 ft.

Humble O. & R. Co. No. 7 Smith, 330 ft. S and E lines, Sur. 382. Set csg. 2,472 ft.; W.O.C.

Humble O. & R. Co. No. 9-A Serna, SW¼, Sur. 384. Cg. 2,464 ft.

Humble O. & R. Co. No. 2 Wright, SW¼ Sur. 118. T.D.; sd. 2,530 ft.; comp.; 14.14 B.P.H. on ½-in. choke; C.P. 195 lbs.; T.P. 25 lbs.

Mid-Continent Pet. Corp. No. 7 Serna, S½ N½, Sur. 384. Swbg. sd. 2,200-08 ft.

Navarro Oil Co. No. 1 Welder, 330 ft. E line, 2,970 ft. N line, Sur. 383. Drlg. sh. 340 ft.

Reliance Oil Co. & Kleiner No. 2 Welder, 1,665 ft. E line, 330 ft. S line, S½, Sur. 381. Sd. 2,389-99 ft.; comp.; 50 B.P.H.

Reliance & Kleiner No. 3 Welder, 2,332 ft. E line, 330 ft. S line, S½, NE¼, Sur. 381. R.U.

Reliance Oil Co. No. 1-A Telford, 150 ft. N and W lines, NE 40-ac. tr., NW¼, Sur. 385. Drlg. 1,565 ft.

Santa Clara Oil Co. (Atkins & O'Neil) No. 1-B Welder, 330 ft. N and W of SE cor. Sur. 382. Set csg. 2,502 ft.; W.O.C.

Santa Clara Oil Co. (Atkins & O'Neil) No. 16 Welder, 330 ft. S and W lines, NE¼, Sur. 385. Comp.; 25 B.P.H. on ½-in. choke; T.D. 2,479 ft.

Santa Clara Oil Co. (Atkins & O'Neil) No. 29 Welder, 330 ft. S and E lines, tr., Sur. 382. Drlg. 2,060 ft.

Santa Clara Oil Co. and H. H. Henderson No. 16-C Welder, 330 ft. N and E lines, SW¼, Sur. 381. Set sur. csg.; W.O.C.

Shell Pet Corp. No. 2-B Welder, 330 ft. W line, 990 ft. W line, E½ SE¼ Sur. 385. T.D. 3,154 ft.; S.D. for wtr.

Shell Pet. Corp. No. 5 Welder, 330 ft. S and W lines, Sur. 385. Drlg. 2,475 ft.

Westheimer & Daube No. 6 Campos, 330 ft. W line, 2,310 ft. S line, Sur. 224. Sd. 2,202-28 ft.; W.O.C.

Westheimer & Daube No. 7 Campos, 330 ft. W line, 2,970 ft. S line, Sur. 224. Drlg. 395 ft.

Pearsall—Frio County

Amerada Pet. Corp. No. 1 Correy & McWilliams, 660 ft. N line, 721 ft. W line, Tr. 17, Manuel Tijerina Sur. No. 300. Cg. 5,459 ft.

Amerada Pet. Corp. No. 1 Correy & McWilliams, 1,980 ft. S line, 746 ft. W line, Tr. 3, Jose Arocha Sur. No. 299. Rng. csg. 5,393 ft.

Amerada Pet. Corp. No. 1 Correy & McWilliams, 660 ft. S line, 725 ft. E line, Tr. 6, Jose Arocha Sur. No. 298. Drlg. 3,217 ft.

Amerada Pet. Corp. No. 7 Halff & Oppenheimer, 1,320 ft. W line, 330 ft. S line, J. H. Gibson Sur. No. 16. Drlg. sh. 2,027 ft.

Amerada Pet. Corp. No. 1 Kothman, 600 ft. N and W lines, B. L. Crouch Sur. No. 90/6. Drlg. 5,252 ft.; chalk.

T. Davis No. 1 Halff & Oppenheimer, 329-ac. tract, J. D. Clare Sur. 346½. Sand 4,022-33 ft.; flowed oil and S.W.; drlg. sh. 5,269 ft.

Gillette—Goliad County

Diamond Halff Oil Co. No. 2 Gillette, J. Gomez Sur. Drlg. 1,921 ft.

Jane Oil Co. No. 1 Lackey & Welder, 590 ft. SW No. 1 Gillette, J. Gomez Sur. T.D. 3,690 ft.; comp.; 150 B.P.D.

Magnolia Pet. Co. No. 1 Porter, 512 ft. NE line, 330 ft. SE line, 142-ac. tract, Myers Sur. No. 25. Plugging 4,660 ft.; T.D.

Zobrowlski-Guadalupe County

W. J. Walton No. 5 Zobrowlski, 1,000 ft. SE No. 3, Clements Sur. Drlg. 1,227 ft.

Clark—Guadalupe County

Zickenroht & Gallagher No. 1 Johns, 130 ft. E line, 450 ft. N line, 840-ac. tr., DeWitt Sur. 13. Drlg. 2,221 ft.

Ramona Oil Co. No. 1 Katie Say, 150 ft. W line, Davis Sur., 150 ft. S line lease. Drlg. chalk 2,330 ft.

Mercedes—Hidalgo County

Union Sulphur Co. No. 7 American Rio Grande L. & I. Co., 4,000 ft. SE of No. 1, Farm tr. 2,309, Blk. 59. T.D. 7,598 ft.; reworking.

Union Sulphur Co. No. 8 American Rio Grande L. & I. Co., 660 ft. N & E lines, Tr. 2,120, Blk. 57. Cg. 7,465 ft.

Union Sulphur Co. No. 9 American Rio Grande L. & I. Co., Farm Tr. 2,275, Blk. 59. R.U.

Samfordyce—Hidalgo County

J. H. Anderson No. 2 Guerra, Tr. 254, Porc. 46. Perf. csg. 2,742.5-48 ft.; comp.; 40 B.P.D. on ½-in. choke.

James H. Anderson No. 3 Guerra, Tr. 254, Porc. 46. Set sur. csg. 299 ft.; W.O.C.

J. T. Barlow No. 1 Maria Flores de Chapa, 230 ft. W line, 692 ft. S line, Tr. 250, Porc. 39. Sd. 2,951.5-55 ft.; D.S. T. 66 ft. P.L.O.; 475 lbs. W.P. 5 min.

Dean Bros. No. 1 Luis George, 150 ft. S line, 230 ft. W line, 10-ac. tract, Tract 13, Porc. 46. Drlg. sh. 677 ft.

E. A. Graham No. 1 Eusebio Flores, 330 ft. S line, midway E and W lines, 26.48-ac. tr., Tr. 267, Porc. 38. Set csg. 204 ft.; W.O.C.

Frank Powell No. 1 George, Tr. 13, Porc. 41. Cg. sd. 2,725 ft.

Weekly Oil Co. No. 1-B Guerra, 150 ft. S line, 230 ft. E line, 9.85-ac. tr., Tr. 12, Porc. 41. Set sur. csg. 200 ft.; W.O.C.

San Diego—Jim Wells County

Houston Oil Co. No. 1 Hawkins & Wallace, 990 ft. S and E lines, Blk. 11. Rmg. 6,215 ft.

Calliham—McMullen County

Agarita Oil Co. No. 2-C Lark, 310 ft. S No. 1, 155 ft. W line, Blk. 56, Scrugham Sur. Set csg. 950 ft.; W.O.C.

Chas. Hall No. 2 Claunch, 400 ft. SE No. 1 Hely Sur. T.D. 967 ft.; bailed dry; W.O. orders.

Luray Oil Co. No. 9 Glass, 160 ft. S Frio River, 520 ft. E line, Blk. 14, Hely Sur. Drlg. plugs 728 ft.

Swearingen et al No. 1 Calliham, 150 ft. N line, 275 ft. E line, Blk. 17, M. Hely Sur. R.U.

Jacob—McMullen County

Loma Oil Co. No. 105-A Jacob, 220 ft. E line tract, 660 ft. N No. 1-F Jacob. Set csg. 955 ft.; swbg. in.

Baldwin—Nueces County

Magnolia Pet. Co. No. 10 Baldwin, 466 ft. N and W line, tract, A. F. Martin Sur. No. 50. T.D. 4,160 ft.; D.&A.

Saxet Heights—Nueces County

Aaron Cohen No. 1 fee, 14/8-ac. tr. Drlg. 3,047 ft.

S. H. Bartlett No. 1 Harry Bartlett, 120 ft. W line, 200 ft. N line, 1.75-ac. tr., Villareal Sur. Drlg. 4,087 ft.

Conroe Drlg. Co. No. 1 John Dunn, 330 ft. S line, midway E and W lines, tr., Villareal Sur. Testing 4,093 ft.

Conroe Drlg. Co. No. 2 Hatch, 330 ft. W line, 990 ft. N line, 40-ac. tr. Spudded.

Conroe Drlg. Co. No. 3 Robinson, 330 ft. S and E lines, Blk. E, McBride Part. Comp.; 600 B.P.D. on 5/16-in. choke; T.D. 4,094 ft.

Culton & Republic Nat. Gas Co. No. 1-C Baldwin, 330 ft. N and W lines, Blk. 13. Sd. 5,195-5,202 ft.; tested S.W.

J. K. Culton No. 2 Savage, 150 ft. N and W lines, 4-ac. tr. Drlg. 3,982 ft.

Erin Oil Co. and Lee Bros. No. 1 Nut Club, 1.5-ac. tr., Lots 1, 2 and 8, Blk. 1, Ellendale Gardens Nos. 2 and 3. Sd. 4,067-85 ft.; comp.; no gauge; T.D. 4,-095 ft.

Erin Oil Co. and J. H. Coker, No. 1 Powell, Blk. 2, Ellendale Gardens No. 3. M.I.M.

J. T. Graham No. 1 Phillips, 200 ft. W line, 104 ft. N line tr. Spudded.

Tom Graham No. 1 City of Corpus Christi, C 5-ac. tr., Villareal Sur. Drlg. 400 ft.

Tom Graham No. 1 Whelan, 330 ft. N and E lines, 40-ac. tract, Villareal Sur. Drlg. 5,041 ft.

D. H. Hawn No. 1 Hoxie, 1,200 ft. N of No. 1 Skipper. M.I.M.

D. H. Hawn No. 1 skipper, cen. 9-ac. tr., N of No. 1 Shelly Comp.; 140 B.P.D. on 5/32-in. choke; T.D. 4,080 ft.

Ray Johnson et al No. 1 Pearson, 3-ac. tr., Ellendale Gardens No. 2. R.U.

Ray Johnson No. 1 Smith, 3-ac. tr., Bancroft farm lots. M.I.M.

Marine Oil Co. No. 1 Kaler, 250 ft. N line, 150 ft. W line, 13.05-ac. tract, Villareal Sur. Set sur. csg.; W.O.C.

Marine Oil Co. No. 2 Worley, 250 ft. N and E lines, 14.92-ac. tr. Drlg. 3,717 ft.

J. P. Nash No. 1 Hatch, 330 ft. E line, 360 ft. N line tr., Blk. F. Sd. 4,092-4,100 ft.; S.W.; S.D. for orders.

Republic Nat. Gas Co. No. 1-B Baldwin, 330 ft. N and W lines, Blk. 19. T.D. 4,-095 ft.; comp.; 12 B.P.H. on 3/16-in.

Republic Nat. Gas Co. No. 2-B Baldwin, 44-ac. tr., Villareal Sur. Drlg. plugs 4,-089 ft.

Southern Minerals Corp. No. 1 Alkali, 330 ft. S line, 243 ft. E line, Southern Alkali Corp. site. T.D. 4,076 ft.; flowing oil and gas.

Southern Minerals Corp. No. 2 Chas. Kaler, Villareal Sur. Drk.

W. F. Stone No. 1 Schleicher, Villareal Sur. No report.

Taylor Ref. Co. No. 1 Brennan, 150 ft. E line, 330 ft. S line, 14-ac. tr. Set csg. 4,050 ft.; W.O.C.

Taylor Ref. Co. No. 1 Saunders, Villareal Sur. S.D. for repairs, 3,540 ft.

J. Parker Thompson No. 1 Powell, Blk. 2, Ellendale Gardens No. 3. M.I.M.

W. A. R. Oil Co. No. 1 John Dunn, 8-ac. tr., N old Shell Road. Drlg. 1,745 ft.

Westgate Oil Co. No. 1 Carver, cen. Tract No. 3, Ellendale Gardens. Spudded in.

Westgate Oil Co. No. 1 Flood, cen. Blk. 4, Ellendale Gardens. Drk.

Westgate Oil Co. No. 1 Geistman, 20-ac. tr., Villareal Sur. Drk.

Westgate Oil Co. No. 1 Sturm, 143.7 ft. W line, 1,777.8 ft. NW line, 39-ac. tract. Sd. 4,080-89 ft.; comp.; 4.5 B.P.H.

Saxet—Nueces County

K. B. Bryan No. 1 Clarkwood Townsite, 165 ft. S line, 190 ft. W line tract, Blk. 14, Land Sur. 404. M.I.M.

R. B. Bryan No. 1 Isensee, 354 ft. N line, 174 ft. E line tr., Land Sur. 404. Comp.; no gauge; T.D. 4,419 ft.

Capitol Oil Co. No. 1 Clarkwood, 130 ft. N and E lines, Blk. 2, Clarkwood Townsite. Sd. 4,396-4,409 ft.; set csg.; W.O.C.

Tom Graham No. 2 Flato, Blk. 30. Set csg. 1,000 ft.; W.O.C.

Houston Oil Co. No. 3 Harrell, 330 ft. S and E line, Blk. 19, Farm Lots 576. Set surface csg.; W.O.C.

Houston Oil Co. No. 9 Rand Morgan, 330 ft. W line, 1,023 ft. N line, sec. 7, Rincon del Oso Sur. Recmtng. 4,867 ft.

Maryland O. & G. Co. No. 1 Winship, cen. Lot 2. Drlg. shale 2,504 ft.

Morgan Gulf Oil Co. No. 2 Morgan, 990 ft. N and E lines, Sur. 403, Spudded in.

Republic Nat. Gas Co. No. 1-B Baldwin, 660 ft. S No. 3, 44-ac. tr. Drlg. 1,257 ft.

W. A. Richardson No. 2 Meredith, Lot 11, Clarkewood Townsite. Drlg. 2,742 ft.

W. A. Richardson No. 1 Smith, C Blk. 4, Clarkewood townsite. Spudded in.

Southern Minerals Corp. No. 3 Isensee, 136-ac. tr., C. Land Sur., No. A-976. Drlg. 1,553 ft.

Southern Mineral Corp. No. 2 Smith, Blk. 4, Sheppard Farm Lots. T.D. 4,862 ft.; swbg.

Texon Royalty Co. No. 1 T. H. Isensee, sec. 404. Sd. 4,397-4,408 ft.; comp.; no gauge.

Plymouth—San Patricio County

Humble O. & R. Co. No. 1 Bevly, 466 ft. N and W lines tr., Blk. 8, sec. 35, Taft Subd. M.I.M.

Magnolia Pet. Co. No. 6 Corpus Christi Land Bank, 250 ft. E line lease, 933 ft. SW No. 5 Hunter Sur. T.D. 5,905 ft.; rng. csg.

Plymouth Oil Co. No. 34-C Welder, 2,825 ft. N line, 1,116 ft. E line, sec. 49, Sand 5,636-42 ft.; comp.; 165 B.P.D.

Plymouth Oil Co. No. 37-C Welder, 3,305 ft. E line, 670 ft. N line, sec. 49. Comp.; 225 B.P.D.; T.D. 5,503 ft.

Plymouth Oil Co. No. 38-C Welder, 2,978 ft. S line, 2,395 ft. W line, sec. 49. Drlg. 5,523 ft.

Plymouth Oil Co. No. 39-C Welder, 460.4 ft. S line, 1,770 ft. E line, sec. 71. Drlg. sd. 3,800 ft.

Plymouth Oil Co. No. 40-C Welder, 1,472 ft. W line, 3,119 ft. S line, sec. 49. Drlg. 2,426 ft.

Plymouth Oil Co. No. 41-C Welder, 4,027 ft. S line, 1,244 ft. W line, sec. 49. Set sur. csg. 353 ft.; W.O.C.

Plymouth Oil Co. No. 42-C Welder, 2,932 ft. N line, 2,043 ft. E line, sec. 49. M.I.M.

Sun Oil Co. No. 4 Hunt, 466 ft. S and W lines, 154.39-ac. tr. Set sur. csg. 364 ft.; W.O.C.

Taft Field—San Patricio County

Humble O. & R. Co. No. 1 Godwin, 330 ft. S and W lines, sec. 23, Taft, Farm Lands, Third Addn. Set csg. 4,100 ft.; W.O.C.

Shell Pet. Corp. No. 1 Pullin, Blk. 4, sec. R.U.

Rio Grande City—Starr County

Fech Oil Co. No. 6 Frank Doyno, Blk. 4, Tr. 77-A, Porc. 81. T.D. 1,450 ft.; D.&A.

Samfordyce—Starr County

Phillips Pet. Co. No. 3 Garcia L. & C. Co., W½, Porc. 100. Sd. 2,788-92 ft.; T.D. 2,-811 ft.; D.&A.

Phillips and Barnsdall No. 8 Yturrice L. & S. Co., 110-ac. tr., E½ Porc. 100. Spudded in.

Carolina-Texas—Webb County

Foster Barnsby No. 5 Webster, Sur. 684. Swbg.; T.D. 2,047 ft.

Cole—Webb County

Cole Pet. Co. No. 95 Rosa Benavides, Blk. 7, Sur. 7. P.B. 2,935-53 ft.; sd. tested gas.

Lopez—Webb County

Hunter Co. No. 4 A. S. Billings, 990 ft. E line, 330 ft. N line, S½, NE¼, Sur. 113. Sd. 2,125-48 ft.; W.O.C.

C. H. Lewis No. 5 Lopez, sec. 110. Drlg. 1,023 ft.

Mills Bennett Prod. Co. No. 3 Montemayor, 2,310 ft. W line, 2,042 ft. N line, Sur. 114. Drlg. 1,832 ft.

Mills Bennett Prod. Co. No. 8 Montemayor, Sur. 114. Drlg. 623 ft.

Mills Bennett Prod. Co. No. 10 Montemayor, Sur. 114. Comp.; 20 B.P.H.; T.D. 2,190 ft.

Mills Bennett Prod. Co. No. 1-A Lopez, Sur. 111. Sd. 2,241-48 ft.; comp.; 20 B. P.H.

Mills Bennett Prod. Co. No. 2 A. Lopez, Sur. 111. Drlg. 150 ft.

Mills Bennett Prod. Co. No. 4 A. Lopez, Sur. 111. Drlg. 417 ft.

Luling O. & G. Co. No. 1 Peal, 330 ft. S and E lines, Blk. 11, Sur. 72. Set sur. csg.; W.O.C.

G. G. Mortimer No. 8 M. Lopez, Sur. 112. Sd. 2,232-43 ft.; comp.; 8 B.P.H.; ½-in. choke.

G. G. Mortimer No. 1 Paula Vela, 1,225 ft. W line, 2,520 ft. S line, Sur. 114. Comp.; 15 B.P.H.; sd. 2,183-92 ft.

G. G. Mortimer No. 2 Paula Vela, Sur. 114. Spudded in; S.D.

Superior Oil Co. No. 4 A. S. Billings, Sur. 113. Sd. 2,125-48 ft.; W.O.C.

Superior Oil Co. No. 7 A. S. Billings, Sur. 113. Drlg. 418 ft.

Superior Oil Co. No. 7 Billings, 2,970 ft. E line, 330 ft. N line, Sur. 109. T.D. 2,247 ft.; D.&A.

O'Hern—Webb County

Hamil & Smith No. 1 Bruni, 330 ft. N and W lines, Sur. 2,213. R.U.

Magnolia Pet. Co. No. 4 J. Benavides, Blk. 321. M.I.M.

Magnolia Pet. Co. No. 35 Brennan-Benavides, Hale Subd. Sd. 2,732-38 ft.; tested gas.

Magnolia Pet. Co. No. 36 Brennan-Benavides, Blk. 398. T.D. 2,780 ft.; comp.; 12 B.P.H.

Magnolia Pet. Co. No. 6-B Servando-Benavides, Blk. 425. Comp.; 8 B.P.H. on 5/16-in. choke; T.D. 2,835 ft.

T. S. Reid No. 1 Benavides, Blk. 319. Drlg. 1,521 ft.

Texas Co. No. 13 Benavides, Blk. 393. Sd. 2,792-2,806 ft.; comp.; 9 B.P.H. on ½-in. choke.

Texas Co. No. 14 Benavides, Blk. 424. Drlg. 368 ft.

Escobas—Zapata County

B. W. Roscoe No. 4 Bustamante, Share 33. R.U.

Locke Purnell No. 1 M. Garza heirs, 185 ft. NE line, 196 ft. NW line, Blk. 14, Zorro ranch. Cg. 1,283 ft.

Texas Co. No. 86 Whitehead, 25,816 ft. SW line, 11,992 ft. SE line, Cerrito Blanco grant. Sd. 1,243-60 ft.; rmg.

Haynes—Zapata County

Clover O. & G. Co. No. 10 Haynes, Blk. 7. Comp.; 25 B.P.D. on pump; T.D. 943 ft.

Clover O. & G. Co. No. 11 Haynes, 1,000 ft. SW line, 1,450 ft. NW line, Blk. 7. M.I.M.

South Texas Oil Co. No. 1 fee, 330 ft. N and W lines, Blk. 21, Sur. 768. Cg. 2,537 ft.

S. W. TEXAS WILDCATS

Week Ending March 28

Atascosa County

Atascosa Trust No. 1 Domsch, 160 ft. S line, 300 ft. E line, 152-ac. lease, J. T. Russell Sur. 1,322. Drlg. 2,193 ft.

Bastrop County

Marts & Beavens No. 4 Riddle, 800 ft. W line, 600 ft. S line tr., Maxmillian Sur. No report.

Bee County

Marine Oil Co. No. 1 Hearn, 2,000 ft. E No. 1 Woods, E. Ryan Sur. T.D. 5,935 ft.; perforating.

H. A. Pressey No. 1 Hicks, 1,450 ft. of S line, 150 ft. of W line, lease, J. Uranga grant. Drlg. 1,589 ft.

Bexar County

J. Dupree No. 1 Coffey, Rodriguez Sur. T.D. 1,123 ft.; S.D.

Joe Deupree No. 1 Winters, F. Roderigues Sur. Drlg. 900 ft.

H. A. Pagenkopf No. 1 Ritteman, 2,500 ft. E line, 500 ft. N line, C. Texada Sur. Fsg. 2,308 ft.

H. V. Schumaker No. 1 Gillette, 465 ft. White road, 235 ft. N line, 49-ac. tract, de Alamiz Sur. No. 30. T.D. 390 ft.; S.D.

Brooks County

California Co. No. 1 B. Garcia, 465 ft. N and W lines lease. B. Garcia tract, Salinas Sur. Cg. 4,735 ft.

Burleson County

Walter Blumenthal No. 1 Crane, W. C. Pierce Sur. No. 297. Drlg. 6,178 ft.

Dewitt County

R. Baurke No. 1 Steinman, 937 ft. N and S lines, U. Blue ½ League. D.&A. 2,-410 ft.

Hill Bros. & Koontz No. 1 Herman Riddle, 460 ft. S line, 330 ft. W line, 535-ac. tr., Santos Sur. T.D. 5,811 ft.; D.&A.

Duval County

C. G. Glasscock No. 1 Milano Land & Garden Co., Sur. 87. Set sur. csg. 47 ft.; W.O.C.

Frank Gravis No. 1 C. K. Gravis, 1,650 ft. SE line, 990 ft. SW line, Sur. 250. T.D. 4,502 ft.; fsg.

Howard Pet. Co. No. 1 Ruiz, 2,640 ft. NW line, 660 ft. NE line, Sur. 12. Drlg. 2,-920 ft.

Kepley Prod. Co. No. 1 Sevier, 330 ft. S line, 1,320 ft. E line, Sur. 71. R.U.

Magnolia Pet. Co. No. 1 Gray ranch, 330 ft. S and E lines, Sur. 556. R.U.

Stanolind O. & G. Co. No. 3 Farmers Life Ins. Co., 330 ft. S and E lines, Sur. 559. Spdg. in.

Edwards County

Paul Teas No. 1 Stewart, C SE¼ sec. 2, G.C.&S.F. Sur. Drlg. sh. 3,370 ft.

Goliad County

Cotton Belt O. & G. Co. No. 1 Lutenbacher, 330 ft. S and W lines, Blk. 25, Goliad Townsite. Drlg. 1,643 ft.

Magnolia Pet. Co. No. 1 Tipton, 330 ft. SE and SW lines, Thorman Sur. M.I.M.

Guadalupe County

Paul Armstrong and J. E. Clark No. 1 Brodnaux, 150 ft. SE cor. 36-ac. tr., King Sur. No report.

Hidalgo County

Gerald O. & G. Co. No. 1 Nelson Mortgage Co., Blk. 38, Lot A, La Donna Tr. Rmg to set csg. 320 ft.

Gulf States Oil Co. No. 1 Delta Orchards, 550 ft. from N line, 400 ft. W line, Lot 2, Blk. 78, Las Mestanas grant. T.D. 6,-808 ft.; W.O. orders.

Maxwell-Mundy No. 1 Hid. Wtr. Dist. No. 2, Lot 11, Blk. 20, Alamo Tr. Sd. 652-60 ft.; W.O. orders.

Quintana Petroleum Co. No. 1 John C. Engleman, Lot 16, Blk. 94, Las Mestanas grant. Cg. sh. 6,172 ft.

Dayle Smith No. 1 Fairbanks & Young, Blk. 44, Por. 46, jurisdiction of Reynosa. Cg. 1,642 ft.

Jim Hogg County

S. L. Miller No. 2 Yeager, 777 ft. S line, 150 ft. E line, Blk. 6, Sur. 20. M.I.M.

Jim Wells County

O. W. Killam No. 1 Reynolds, C S half Sur. 28. Drlg. 2,827 ft.

G. M. Richardson No. 1 Garrett, 1,980 ft. S line, 1,640 ft. E line, sec. 5. Drlg. 2,413 ft.

Texon Roy. Co. and Lucey No. 1 Rois-

ton, 330 ft. N and W lines, sec. 17, King Farm Lots. Drlg. 4,063 ft.

Kerr County

Auld and Evans' No. 1 Heffner, 660 ft. N line, 330 ft. E line, Sec. 13, B.S.&F. Sur S.D. 1,451 ft.

Eastland Oil Co. No. 7 Love, 660 ft. N Evans & Gant No. 1 Love, Martinez Sur. No. 1,594. T.D. 1,500 ft.; standing.

LaSalle County

Davenport & Talbott No. 1 Watkins, 1,610 ft. S line, 330 ft. E line, Sur. 103. R.U.

Live Oak County

Dirks Bros. No. 1 Dougherty, 330 ft. NW line, 960 ft. NE line, 320-ac. tract Beagle Sur. Rmg. 5,200 ft.

R. H. Feltner No. 1 J. T. Carter, 1,847 ft. NW line, 350 ft. NE line, 120-ac. tract, sec. 319. S.D. 2,962 ft.; fsg.

McMullen County

Darby Pet. Corp. No. 3-B Hagist, 330 ft. S line, 990 ft. W line, Sur. 187. Cg. 1,790 ft.

F. Dayvault No. 1 Matula, 150 ft. S line 2,462 ft. E line tr., Jas. Garner Sur. T.D. 1,023 ft.; standing.

R. J. Hill No. 1 Richardson, Sur. 158. Set sur. csg.; W.O.C.

Magnolia Pet. Co. No. 2 Kincaid, 330 ft. S and E lines, Sur. 56. R.U.

V. G. Schimmell No. 3 Two Rivers ranch, 330 ft. S and W lines, Sur. 58. R.U.

Whisenant & Trenchard No. 1 Roos Bros., C SE¼ SE, Sur. 93. Cg. 2,515 ft.

Medina County

W. C. Campbell's No. 1 McMenemy, 160 ft. S and W lines, Sur. 33. T.D. 2,230 ft.; going on pump.

Nueces County

Allen & McCormick No. 1 McBurnett, 660 ft. N line, 330 ft. E line, Lot 2, Robert Shallert ranch. Drlg. 4,417 ft.

A. D. Cargray No. 2 Baldwin, 330 ft. N line, 550 ft. E line, Blk. 21, sec. 51. Drlg. 2,350 ft.

Coker & Lee Bros. No. 1 Geistman, 330 ft. N line, 660 ft. W line, 40-ac. tract, J. R. Ward Sur. No. 316. Sd. 3,161-65 ft.; S.W. and S.O.; standing.

M. F. Hurlburt No. 1 Phillips, sec. 8, Flour Bluff Garden Tr. Drlg. 2,520 ft.

La Jita Oil Corp. No. 2 King, 660 ft. N and W lines, sec. 24. Drlg. 2,017 ft.

Santa Clara Oil Co. (Atkins & O'Neil) No. 1 Cooke, 990 ft. N line, 330 ft. W line, sec. 14. Drlg. 3,021 ft.

San Patricio County

Benedum & Trees Oil Co. No. 1 Jones, 1,650 ft. E line, 990 ft. S line, NW¼ sec. 65. Cg. 3,500 ft.

Benedum & Trees Oil Co. No. 2 Welder, sec. 19. Sd. 5,696-5,710 ft.; tested 200 ft. oil; 100 ft. mud in 4 min.

Santa Clara Oil Co. (Atkins & O'Neil) No. 4 Welder, 2,300 ft. SE line, 1,791 ft. NE line, 1,250-ac. tract, Villareal Sur. Drlg. 4,220 ft.

Willis Storm No. 1 Nancy Hobbs, 622 ft. NW and SW lines, 30-ac. tr. Cg. 4,251 ft.

Starr County

J. H. Clopton No. 3 Kelsey-Bass, sec. 357. Drlg. 417 ft.

Coreta Oil Co. No. 1 Haden, Share 47, Porc. 80. No report.

Webb County

Austin & Vernon's No. 1 Jeffries, 150 ft NE line, 1,170 ft. SE line, Blk. 13, Sur 1,453. Drlg. 1,377 ft.

Willacy County

Shell Pet. Corp. No. 1 Yturria Land & Cattle Co., 990 ft. S and E lines, Share 64, San Juan de Carricitos grant. Drlg. rathole; R.U.

Zapata County

Murt Cullinan No. 1-A Gutierrez, Blk. 3, Share 2, Comitas grant. R.U.

Ivan Howard No. 1 Martinez, 4,950 ft. SW line, 330 ft. NW line, Blk. 5, Sur. 206. Cg. 855 ft.

J. J. O'Hern's No. 1 Raymond, 330 ft. NW line, 330 ft. NE line, Blk. 5, Share 5, Porc. 27. T.D. 2,658 ft.; swbg. S.W.

LA.-ARK. WILDCATS

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

Bienville Parish

DeSoto O. & G. Co. No. 1 C. R. Mower, 370 ft. S. 400 ft. W. NE cor. NW SW sec. 9-16-10. S.D. 3,000 ft.

Lide & Greer No. 1 Davis Bros. Lbr. Co., 660 ft. S and W, NE cor. SE sec. 12-16-5w. Reaming to set 7-in. csg. 6,145 ft.

Bossier Parish

Geo. H. Bringhurst et al No. 1 Buckley, NE SW sec. 36-21-13. S.D. 2,298 ft.

United Gas Pub Ser. Co. No. 1-A A. J. Murff, NW cor. sec. 17-17-11. Set 9⅝-in. csg. 3,614 ft.

Caddo Parish

Falcon Oil Co. No. 15 Deckson, NW SE sec. 27-20-15. Set 7-in. csg. 1,923 ft.; testing 2,325 ft.

Hilliman et al No. 2 Muslow, NW SE sec. 32-21-15. Csg. collapsed 2,140 ft.

Juan et al No. 1 Hobbs, NE NE sec. 28-21-15. W.O.S.R. 1,669 ft.

Pyramid O. & G. Co. No. 1-A S. R. Wheeler, 1,320 ft. S, 1,500 ft. W, NE cor. sec. 16-18-16. Drlg. 3,715 ft.

Sport Oil Corp. No. 1-D Muslow, SE cor. sec. 5-20-16. Drlg. 2,222 ft.

Caldwell Parish

Critchett & Woods No. 1 Kyles. NE cor SW NE sec. 18-11-3e. P.B. to 1,300 ft.; old T.D. 1,740 ft.

Claiborne Parish

W. C. Glothlin et al No. 1 Brinker, SW cor. SE sec. 10-23-4w. S.D. 4,500 ft.

E. T. Oakes No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. sec. 1-20-5w Fishing for D.S., 4,242 ft.

Triangle Drlg. Co. No. 1 Kilpatrick, 660 ft. N and E cen. sec. 7-19-5. O.W.D.D. 4,458 ft.

United Gas Public Service Co. No. 2 Durfett, 660 ft. N and 1,980 ft. E, SW cor. sec. 31-20-5. Set 7-in. 5,665 ft.

Concordia Parish

Zeni Oil Co. No. 1 Young, 1,200 ft. W, 100 ft. N, SE cor. sec. 28-6n-8e. S.D. 1,120 ft.

De Soto Parish

S. S. Alexander No. 1 G. R. Stell, 330 ft S and W, NE cor. sec. 5-12-16. S.D. 5,595 ft.

A. G. Halbach et al No. 1 Staton, 150 ft N and E, SW cor. SE sec. 29-13-14. S.D. 3,204 ft.

S. C. Jensen No. 1 Bailey, 660 ft. N and W of C sec. 12-11-6e. R.U.

R. C. Payne No. 1 Harris, NE cor. SW SE sec. 11-13-14. Set 10-in. 27 ft.; S.D. 500 ft.

Union Pet. Co. No. 1 Hill, sec. 3-10-13. S.D. 1,400 ft.

J. K. Wodley et al No. 2 Logan Oil Co., NW sec. 16-10-12. Drlg. 3,265 ft.

Grant Parish

Alexander et al No. 1 Maxwell, sec. 9-9-1e. W.O.S.R. 1,538 ft.

Law Oil Co. No. 1 Long, SE cor. SW sec. 9-9-1e. Set 10-in. 60 ft.; S.D. for fuel 1,005 ft.

Taw Oil Co. No. 1 Bradford, NE cor. NW sec. 16-9-1e. Set 10-in. 60 ft.

Jackson Parish

Geo. W. Zeigan No. 4 La. Cent. Lbr. Co., NW SE sec. 25-14-2w. Set 12½-in. csg. 63 ft.; dry and abd. 1,785 ft.

Geo. W. Zeigan No. 5 La. Cent. Lbr. Co., SW NE sec. 13-14-2w; set 12½-in. csg. 63 ft.; dry and abd. 1,770 ft.

La Salle Parish

Montague Oil Co. No. 7-A Zenonia Lbr. Co., NE cor. sec. 10-9-1e. Set 10-in. 40 ft.; set 7-in. 1,500 ft.; testing 1,520 ft.

Lincoln Parish

Ark.-La. Gas Co. No. 1 C. E. Causey, NW cor. NE NW sec. 32-19-2w. Drlg. 3,293 ft.

Caldwell Land & Timber Co. No. 1 J. K. Hammons, 330 ft. S and E, NW cor. SE SW sec. 30-18-1w. Washing to bottom 403 ft.

Herman L. Brown et al No. 1 S. Gardner, 220 ft. N, 380 ft. E, SW cor. NW NE sec. 10-17-4w. S.D. 4,587 ft.

Morehouse Parish

J. B. Collins et al No. 1 E. M. Clarke, SE NE sec. 10-20-7e. Rigging up.

United Gas Pub. Ser. Co. No. 32 Crossett, NE SE sec. 27-21-4e. Set 7-in. 2,111 ft.

United Gas Pub. Ser. Co. No. 34 Crossett, NE cor. sec. 27-21-4e. Set 13-in. 141 ft.; set 7-in. 2,276 ft.

United Gas Pub. Ser. Co. No. 19 Tensas, NE SW sec. 5-21-4e. Rigging up.

Richland Parish

J. S. Morrisey No. 1 Jones, 1,293 ft. N, 636 ft. E, SW cor. sec. 15-18-7e. S.D. 1,370 ft.

Arthur Wray No. 1 Slocum, 2,436 ft. S 560 ft. W, NE cor. sec. 10-17-6e. S.D. 1,676 ft.

Sabine Parish

M. C. Forsman No. 1 Patrick, NE SW sec. 21-9-13. Set 8-in. 75 ft.

Monroe Prod. Co. No. 1 Boyd, NE cor. SE sec. 25-9-14. Set 10-in. 72 ft.; drlg. 1,700 ft.

J. S. Nicholson No. 1 Cassell, 330 ft. S and W, NE cor. NW SW sec. 25-9-14. Testing at 2,180 ft.

Posey Sisters Oil Co. No. 2 A. J. Burkett, C NE NE sec. 10-9-13. Set 7-in. 1,440 ft.; testing 1,978 ft.

Claude H. Smith No. 1 Whitney Corp., 330 ft. S, 990 ft. W, NE cor. sec. 19-10-13. S.D. for fuel 1,615 ft.

A. H. Tarver No. 2 Baker, NW cor. NE sec. 36-8-12. Drlg. 5,000 ft.

Whitehurst & Myers No. 1 Paul, SE cor. SW sec. 24-9-14. Drlg. 650 ft.

Union Parish

Boucher & Pace No. 1 Frost-Johnson, NE NE sec. 27-21-1e. Drlg. 1,575 ft.

Interstate Nat. Gas Co. No. 44 fee, NW SW sec. 7-20-4e. Set 6-in. 2,086 ft.

Interstate Nat. Gas Co. No. 46 fee, SE NE sec. 25-20-3e. Drlg. 1,000 ft.

Southern Carbon Co. No. 8 Grayling, NE SW sec. 28-21-4e. Set 8-in. 2,065 ft.

United Gas Pub. Ser. Co. No. 3 Stovall, NE NW sec. 33-21-4e. Rigging up.

Vernon Parish

Liano Del Rio Co. No. 2 Gulf Lbr. Co., 1,285 ft. S, 1,000 ft. W, NE cor. sec. 7-1n-9w. S.D. 2,960 ft.

Webster Parish

J. L. Edwards No. 1 Hooper, 330 ft. S and E, NW cor. SW sec. 8-17-9. Drlg. 1,940 ft.

J. P. Evans et al No. 1 T. Crichton, NE SE sec. 35-18-9. Drlg. 4,025 ft.

C. [illegible] Co. No. 1 L. Holloway 660 ft. S, 760 ft. W, C sec. 33-21-10. Drlg. 6,720 ft.

EAST TEXAS

(Border Counties)

Cass County

American Liberty Oil Co. No. 1 D. & Maxie, John Collum Sur. Coring 5,974 ft.

American Liberty Oil Co. No. 1 Marcus Rembo, J. H. Reeves Sur. Set 16-in. 250 ft.

R. W. Norton No. 2 Mary Rives, John Collum Sur. Set 13⅜-in. 298 ft.

United Gas Pub. Ser. Co. No. 1 J. P. Jones Unit, Ben Murray Sur. Comp. 100 bbls. per hour 6,037 ft.

Harrison County

R. C. Payne et al's No. 1 Lowery, H. D Spain Sur. P.B. to 3,524 ft.

Marion County

Ed S. Holman's No. 1 Henderson, R. Bennington Sur. P.B. to 2,443 ft.

Panola County

George Hudson et al's No. 1 J. F. Wall & McGeary Sur. Set 8-in. 40 ft.; fshg. for core bbl. at 2,345 ft.

Geo. Le Grand No. 1 P. J. Wardleigh, A. Thompson Sur. Set 10-in. 62 ft.

ARKANSAS

Arkansas County

Ark. O. & G. Co. No. 3 Fischer, 250 ft. S, 200 ft. E, NW cor. NE NW sec. 6-4w. R.U.; W.O.

Ashley County

Seaboard Oil Corp. No. 2 fee, NW cor. NW NE sec. 28-17-4. Dry and abd. 2,492 ft.

Clark County

Boris Tripanoff, tr., No. 1 W. Gibbons, sec. 27-8-18. Arranging to test 557 ft.

Dallas County

Kel-Mac Lease & Royalty Co. No. 2 R. Owens, NW cor. NW SW sec. 26-10-16. R.U.

Hempstead County

Dixie Drlg. Co. No. 1 Wheatley, 330 ft. S. 30 ft. E, NW cor. SW NE sec. 14-11-26. R.U. and S.D.

Fitzwater et al No. 2 Lafferty, C NW sec. 17-14-24. Arranging set csg. 1,986 ft.

Murdock-May & Easton No. 1 Conway est., 330 ft. N and E, SW cor. NW SW sec. 17-14-24. Set 12½-in. 80 ft.; S.D. 120 ft.

LaFayette County

Earl F. Fox No. 2 Coleman Bros., NE NE sec. 30-16-24. S.D. 3,760 ft.

Erwin & Leach No. 3 Bodcaw Lbr. Co., 330 ft. S and E, NW cor. sec. 20-16-13. Will set csg. 5,000 ft.

Joe Modisett No. 1 Red River Lbr Co., C SW SW sec. 21-19-14. Drlg. 4,359 ft.

Transportation Pet. Co. No. 1 Cockran, 330 ft. S and W, NE cor. SE sec. 26-19-25. Tested S.W.; T.A. 3,675 ft.

Miller County

Odell Hinson No. 1 Montana Realty Co., NE cor. NW NW sec. 3-17-28. Set 12½-in. csg. 238 ft.

King Oil Corp. No. 1 G. W. Crank, SW NE sec. 19-16-25. S.D.; W.O. 3,906 ft.; (corrected).

C. V. Lenz No. 8 Dale, sec. 24-15-26. Set 10-in. 200 ft.; drlg. 1,150 ft.

L. H. Mahon et al No. 1 Miller Land & Timber Co., SW cor. SE sec. 29-18-27. S.D. 1,812 ft.

Ouachita County

L. L. McDonald No. 1 Langley, 330 ft. N and E, SW cor. NE SW sec. 19-15-15. S.D. 1,700 ft.

Phillips Pet. Co. No. 1 J. D. Reynolds, 330 ft. N and W, SE cor. SE NW sec. 27-15-15. Coring 4,904 ft.

J. D. Reynolds No. 1 McKenzie, 204 ft. S, 300 ft. W, NE cor. SE SW sec. 36-15-16. W.O.S.R. 1,970 ft.

Union County

Arkansas Southern Oil Co. No. 1 F. R. Laney, sec. 30-19-16.
Installing larger rig. 175 ft.

J. C. Bucbee No. 1 Ezzell, SW cor. NE NW sec. 13-17-15. Drlg. 3,242 ft.

J. C. Buckbee, tr. No. 1 Sloan, 330 ft N and E, SW cor. SE NW. Comp. 10 bbls. daily 3,160 ft.

McCresslen Oil Co. No. 2 D. Norman, NE cor. NE SE sec. 3-18-13. Set 10-in. 129 ft.; drlg. 1,671 ft.

Ohio Oil Co. No. 4 R. Furlough, SE NW sec. 12-17-14. Set 7-in. 3,180 ft.

LA.-ARK. PROVEN

NORTH LOUISIANA

Caddo—Rodessa

Ark.-La. Gas Co. No. 8 Rodessa O. & Land Co., 330 ft. S and E., NW cor. SE NE sec. 22-23-16. Comp. 40 bbls. per hour 5,985 ft.

Ark.-La. Gas Co. No. 9 Rodessa O. & Land Co., 330 ft. S, 520 ft. W, NE cor. SE SE sec. 13-23-16. Comp. 10 bbls. per hour 6,003 ft.

Ark.-La. Gas Co. No. 10 Rodessa O. & Land Co., 330 ft. S and W. NE cor. SE NE sec. 23-23-16. Set 7-in. 5,990 ft.; testing 6,012 ft.

Ark.-La. Gas Co. No. 11 Rodessa Oil & Land Co., NW cor. NE sec. 23-23-16. Drlg. 5,563 ft.

Ark.-La. Gas Co. No. 12 Rodessa Oil & Land Co., NW SE sec. 23-23-16. R.U.

Ark-La Gas Co. No. 9-A Rodessa Oil & Land Co., SE NE sec. 22-23-16. Set 15-in. 237 ft.; drlg. 1,609 ft.

Bartex Pipe Line Co. No. 2 Norton Est., 330 ft. N and E, SW cor. NW NW sec. 17-23-15. Set 7-in. 6,002 ft.; T.D. 6,042 ft.

Bartex Pipe Line Co. No. 3 Norton Est., SE NE sec. 18-23-15. Drlg. 4,565 ft.

Bartex Pipe Line Co. No. 4 Norton Est., SW cor. SW NW sec. 17-23-15. Set 16-in. 258 ft.

Bartex Pipe Line Co. No. 1 Robinson, C E½ NE SE sec. 18-23-15. Fsg. for D.S. 6,028 ft.

Bartex Pipe Line Co. No. 2 Robinson, center W½ NW SW sec. 17-23-15. Set 7-in. 6,029 ft.; testing 6,057 ft.

Bartex Pipe Line Co. No. 2 Rodessa Oil & Land Co., NE SE sec. 13-23-15. Set 16-in. 254 ft.; set 10¾-in.; drlg. 5,745 ft.

S. P. Borden No. 1 K.C.S., NW cor. SW sec. 23-23-16. Set 13⅜-in. csg. 290 ft.; set 9⅝-in. csg. 2,035 ft.; drlg. 2,250 ft.

Danciger O. & R. Co. No. 1 J. F. Neugent, C Lot 3, Blk. 12, sec. 23-23-16. Set 16-in. csg. 346 ft.; drlg. 1,545 ft.

Duncan & Woods No. 1 Andrews, Lot 5, Blk. 21, sec. 23-23-16. Rigging up.

Haynes Prod. Co. No. 10 Lawton, NE SW sec. 14-22-16. Drlg. 5,434 ft.

Haynes Prod. Co. No. 11 Lawton, 330 ft. N, 490 ft. E, SW cor. sec. 14-22-16. Rigging up.

Haynes Prod. Co. No. 3 Otwell, SW cor. sec. 14-23-16. Drlg. 5,356 ft.

Haynes Prod. Co. No. 4 Otwell, SE cor. sec. 15-23-16. Set 9⅝-in. 2,095 ft.; drlg. 3,518 ft.

Haynes Prod. Co. No. 2-B Pitts, SE cor. NW SE sec. 12-23-16. Set 9⅝-in. 2,091 ft.; drlg. 3,540 ft.

Haynes Prod. Co. No. 4 Tyson, NW cor. NW NE sec. 14-23-16. Comp. 32 bbls. per hour 6,051 ft.

J. Edward Jones No. 1 Ashley, Lot 6, Blk. 13, sec. 22-23-16. Set 16-in. 253 ft.

R. W. Norton No. 1 J. Elder Unit, NE cor. sec. 33-23-16. Drlg. 5,545 ft.

W. F. Lacey No. 1 Tyson, NE cor. SE NW sec. 24-23-16. Set 16-in. 235 ft.; drlg. 1,483 ft.

Lyons & Neely No. 1 Blaxton, C Lot 11 and 12, Blk. 22, sec. 22-23-16. Drlg. 3,-881 ft.

M. H. Marr No. 3 Hunter, NW cor. SW sec. 13-23-16. Reaming to set 7-in. 6,041 ft.

M. H. Marr No. 4 Hunter, 330 ft. S, 1,316 ft. E, NW cor. SW sec. 13-23-16. Comp. 20 bbls. per hour 6,047 ft.

M. H. Marr No. 5 Hunter, NW cor. SW sec. 13-23-16. Rigging up.

M. H. Marr No. 1 Peak, SW SE sec. 11-23-16. Set 10¾-in. 2,052 ft.; Drlg. 4,-248 ft.

R. W. Norton No. 1 Spearman Unit, 1,980 ft. N, 1,155 ft. W, SE cor. sec. 18-23-15. Set 7-in. 6,057 ft.; T.D. 6,600 ft.

R. W. Norton No. 1 Atkins, 330 ft. N and W, SE cor. NE NE sec. 18-23-15. Set 7-in. 5,989 ft.; T.D. 6,020 ft.

R. W. Norton No. 1 Slattery, NW cor. sec. 28-23-16. Drlg. 3,865 ft.

Travis et al No. 1 Raney, 990 ft. W of C sec. 17-23-15. Drlg. 5,745 ft.

Tri-State-Williams & Peterbaugh No. 1 Ellis, Lot 2, Blk. 20, Townsite, sec. 23-23-16. Drlg. 4,722 ft.

United Gas Pub. Ser. Co. No. 5 Ardis & Co., SW SE sec. 14-23-16. Drlg. 5,795 ft.

United Gas Pub. Ser. Co. No. 6 Ardis & Co., SE cor. sec. 14-23-16. Drlg. 3,595 ft.

United Gas Pub. Ser. Co. No. 7 Ardis & Co., SW cor. SE SW sec. 14-23-16. Set 13⅜-in. 335 ft.

United Gas Pub. Ser. Co. No. 2 Brewer Unit, 657 ft. S, 578 ft. E, NW cor. sec. 29-23-16. Comp. 55 bbls. per hour 6,051 ft.

United Gas Pub. Ser. Co. No. 1 Gipson Unit, NE SW sec. 15-23-16. Drlg. 5,840 ft.

United Gas Pub. Ser. Co. No. 1 M. L. Pitts. 990 ft. N, 330 ft. E, SW cor. sec. 13-23-16. Comp. 16 bbls. per hour 6,081 ft.

United Gas Pub. Ser. Co. No. 2 M. L. Pitts Unit, NE SW sec. 13-23-16. Drlg. 5,-528 ft.

United Gas Pub. Ser. Co. No. 3 M. L. Pitts Unit. NE SW sec. 13-23-16. Set 9⅝-in. 2,150 ft.; drlg. 3,360 ft.

United Gas Pub. Ser. Co. No. 4 M. L. Pitts Unit, SW cor. sec. 13-23-16. Set 13⅜-in. 300 ft.; drlg. 2,025 ft.

United Gas Pub. Ser. Co. No. 2 N. S. Spearman Unit, SW NW sec. 18-23-15. Rigging up.

United Gas Pub. Ser. Co. No. 2 Thomas Unit, NE cor. sec. 23-23-16. Drlg. 5,771 ft.

United Gas Pub. Ser. Co. No. 8 Tyson Unit, 306 ft. S, 318 ft. E, NW cor sec. 13-23-16. Set 7-in. 5,984 ft.; T.D. 6,022 ft.

United Gas Pub. Ser. Co. No. 1 Tyson Unit, SW NW sec. 13-23-16. Drlg. 4,-631 ft.

United Gas Pub. Ser. Co. No. 9 Tyson, NE cor. sec. 14-23-16. Set 9⅝-in. 2,174 ft.; drlg. 3,419 ft.

United Gas Pub. Ser. Co. No. 7 Rodessa Oil & Land Co., 231 ft. N, 330 ft. W, SE cor. sec. 15-23-16. Comp. 78 bbls. per hour 5,990 ft.

United Gas Pub. Ser. Co. No. 11 Rodessa Oil & Land Co., NW cor. sec. 23-23-16. Drlg. 5,613 ft.

United Gas Pub. Ser. Co. No. 12 Rodessa Oil & Land Co., 1,389 ft. N, 148 ft. W, C sec. 22-23-16. Set 9⅝-in. 2,178 ft.; drlg. 4,601 ft.

United Gas Pub. Ser. Co. No. 13 Rodessa Oil & Land Co., SW NE sec. 22-23-16. Set 13⅜-in. 309 ft.

United Gas Pub. Ser. Co. No. 15 Rodessa Oil & Land Co., NE cor. sec. 22-23-16. Set 9⅝-in. 2,182 ft.

United Gas Pub. Ser. Co. No. 16 Rodessa

Oil & Land Co., NE cor. NW NW sec. 23-23-16. Drlg. 335 ft.
United Gas Pub. Ser. Co. No. 2 I. L. Young, 1,944 ft. N, 605 ft. W, SE cor. sec. 21-23-16. Drlg. 5,721 ft.

Sabine Parish—Zwolle

Ellis Prod. Co. No. 1 Williams, 330 ft. S and W, NE cor. SE NE sec. 23-7-11. Tested dry; S.D.; W.O. 2,806 ft.

NORTH CENTRAL TEXAS WILDCATS

Week Ending March 28

Archer County

Consolidated Oil Co. No. 1 W. H. Portwood-AA, T.E.&L. Sur. No. 1,579. Drlg. 1,340 ft.

C. Crosby No. 1 Ray, Blk. 150, Harris Sub. T.D. 600 ft.; S.D. for water.

Deep Oil Dev. Co. No. 11, Lease 4, L. F. Wilson, sec. 76, A.T.N.C. Lands. C.O. after shot; est. 120 bbls.; P.O.P.; C.O. and testing; est. 75 bbls.

C. B. Long No. 1 J. H. Turbeville-A, Blk. 155, R. Carson Sur. No. A-89. S.S.O. 1,530-31 ft.; W.O.C.

J. C. Hamer No. 1 Andrews, F. A. Whitaker Sur. Loc.

Luther Hedrick et al No. 1 M. B. Kay, Blk. 3, Harris Subd. Drlg. 1,442 ft.

Lickey & Guffy No. 1 J. R. Parkey, sec. 1, S.P. Sur. A-423. R.U.R.

T. O. Shappell No. 1 Mrs. P. A. Carr, sec. 7, B.B.B.&C. Sur. A-48. Drlg. 1,008 ft.

Texas Co. No. 1 J. H. Turbeville "L," J. W. Cain Sur. A-69. Derrick.

Wilson-Ligon No. 1 M. B. Kolb, Blk. 116, Harris Subd. R.U. and S.D.

Baylor County

Hardgrave & McCulloch No. 1 Louis Hrncirik, sec. 5, B.B.B.&C. Sur. A-70. S.D. 300 ft.

Morris & Spoonts No. 1 D. K. Martin, sec. 212, T.&N.O. Sur. A-748. Drlg. 960 ft.

Morris & Spoonts No. 1 J. M. Parker, B.B. B.&C. Sur., sec. 148, Blk. A. Spudded and S.D.

W. P. Morris et al No. 1 C. T. Porter, Edward Brown Sur. Sand with S.O. and gas 1,320-24 ft.; T.D. 1,333 ft.; fshg.

Cooke County

Anderson & Kerr No. 1 F. A. Bruthmeyer, 999 ft. N and 491 ft. W, SE cor. 120-ac., H. Stroud Sur. A-930. Sand 1,882-95 ft.

Anderson & Kerr No. 1 C. A. Steizer, T. B. Stroud Sur. No. A-960. Drlg. 1,658 ft.

Cain & Chandler No. 1 J. B. Burch, J. McWilliams Sur. A-458. R.U.R.

Hardin Oil Co. No. 1 J. G. Bonner, J. Lindheimer Sur. Cg. 1,348 ft.

H. E. Hoover et al No. 1 G. C. Cartwright, B. J. Thompson Sur. A-1,008. Drlg. 1,872 ft.

Kingery Bros. No. 1 S. D. Meador, G. W. Long Sur. A-570. Drlg. 1,155 ft.

Lanier et al No. 1 Thetford, S.P.R.R. Sur. A-987. U.R. 6-in. csg.

L. A. Long et al No. 1 Series, Hunt County School Lands Sur. A-440. Drlg. 2,245 ft.

Hank Masterson No. 1 R. J. Timms, J. W. McPherson Sur. A-696, 1,500 ft. S and 150 ft. W, NE cor. farm. S.S.O. at 1,758-61 ft.

Mills & Carey No. 1 A. M. Bezner, J. B. Trenary Sur. Drlg. at 967 ft.

N. Newburn No. 1 Dotson, Wm. Campbell Sur. A-238. Fsg. 1,543 ft.

Charles Newsom No. 1 T. Wiesman, Blk. 9, Thos. Scott Sur. A-900. Drlg. 1,460 ft.

Petroleum Producers No. 1 J. W. Mount, J. C. Meeks Sur. A-758. Drlg. 1,275 ft.

H. F. Potts No. 1 S. D. Meador, B.B.B.&C. Sur. A-138. Drlg. 900 ft.

L. E. Rader No. 1 McCubbin, R. Wheelock Sur. A-1,684. Drlg. 1,212 ft.; sand 1,556-66 ft.; S.D. for 6-in. csg.

W. F. Russell No. 1 Belle Payne, Marshall University Sur. A-620. Spudded and S.D.

J. M. Russell et al No. 1 B. B. Bawley, Blk. 24, John Barnett Sur. C.O.

Ruwaldt-Couch No. 1 Fleitman, L. Mikel Sur. A-747. Drlg. 825 ft.

Sunray Oil Co. et al No. 1-A A. C. McCall, W. H. White Sur. A-1,134. Drlg. 3,546 ft.

B. F. Thompson No. 1 F. Trubenback, P. Davidson Sur. A-237. Drlg. 450 ft.

Whitehead et al No. 1 W. Reed, F. Earthman Sur. A-349. R.U. std. tools; drlg. 150 ft.

Woodbine Oil Co. No. 1 Potter & Potter, J. Gorham Sur. S.D. at 900 ft.

Denton County

Jack Caudle et al No. 1 B. D. Jones, John Morton Sur. Spudded.

Oil Finance Corp. No. 1 J. S. Gambill, T. Burress Sur. S.D. for pipe.

C. S. Head No. 1 Travelers Insurance Co., Wm. A. Thompson Sur. A-1,218. Drlg. 455 ft.

Foard County

Humble O. & R. Co. No. 1 Burnett, sec. 16, Blk. X, S.P.R.R. Sur. U.R. 2,600 ft.

Jack County

Bryson Oil & Gas Co. No. 1 G. E. Evett, Geo. Hardesty Sur. A-294. Drlg. 3,240 ft.

Clark et al No. 1 L. S. Wright, Z. S. Brooks Sur. A-64. Drlg. 230 ft.

J. W. Cole et al No. 1 Mrs. D. C. Clayton, Lewis Knight Sur. A-324. R.U.R.

S. H. Edwards No. 1 Bryson, J. Hughson Sur. A-256. R.U.R.

R. M. Gillespie No. 1 B. F. Rankin, Jacob Ash Sur. A-8. Sand 2,947-75 ft.; flowing 50 bbls. hour.

Organize New Supply Company

H. B. Gutelius and C. J. Halloran have organized the United Supply & Manufacturing Co. with offices in

H. B. GUTELIUS

the Kennedy Building, Tulsa. Mr. Gutelius, president of the company, has been in the supply business for all his business life, having spent 25 years with National Supply Co., and seven years with Continental Supply Co. from 1925 to 1932, during the latter part of which he acted in the capacity of president and director in charge of its Oklahoma division. He arrived in Tulsa in 1902.

The vice president of the new company, C. J. Halloran, has been with Continental Supply Co. for 19 years, recently in the capacity of district manager at Tulsa in charge of Oklahoma and Kansas. He has made Tulsa his home for 10 years.

The company, which will have three or more branch stores in other

C. J. HALLORAN

parts of the state, will begin operations on a capital of $100,000, and will have as secretary-treasurer E. O. Monnett of Tulsa.

W. H. Hammon No. 1 G. E. Evett, H. Plaster Sur. Loc.; spud.

W. H. Hammon et al No. 1 F. H. Rhodes, R. N. Erwin Sur. A-1,378. Loc.

C. Kadane No. 1 E. F. Smith, S.P.R.R. Sur. A-552. Drlg. 445 ft.

E. C. Lawson et al No. 1 Patterson, Lewis Knight Sur. A-324. Drlg. 2,730 ft.

Nelson Oil Synd. No. 1 J. P. McCoy A. S. Ensworth Sur. Testing at 2,961-80 ft.

Ray & Staniforth No. 1 L. J. Hester, J. Ash Sur. A-8. Drlg. 1,825 ft.

Montague County

A. Gutowsky et al No. 1 J. E. Lemmon, Blk. 13, C. K. Hamm Sur. A-322. Drlg. 845 ft.

E. T. Hart No. 1 W. L. Davis, sec. 12, Jack Co. School Lds. Drk.

J. F. Hart No. 1 W. M. Talley, J. Perrin Sur. T.D. 1,740 ft.; fsg.

L. C. Heydrick No. 1 J. B. Lawrence, M. Burnside Sur. A-14. Drk.

Jim Seeds et al No. 1 Coomba, sec. 54, M.E.P.&P. Sur. S.D. 1,310 ft.

J. M. Holmes No. 1 H. D. Field, sec. 55, M.E.P.&P. Sur. A-528. Drlg. 2,012 ft.

Throckmorton County

Ben Ashe et al No. 1 W. B. Parrott, sec. 961, T.E.&L. Sur. Loc.

Petroleum Prod. Co. No. 1 Portwood K, Wm. Watson A-5159. Drlg. 1,405 feet.

Alex M. Snyder No. 1 W. J. Timmons, sec. 793, T.E.&L. Sur. Drlg. 1,107 feet.

Wichita County

F. P. Cullum No. 1 T. L. Burnett, sec. 4, H.T.&B. Sur. A-752. Drlg. 1,840 ft.

Fisher & Moore No. 1 Gibson, sec. 302, Sand 1,824-60 ft. W.O.C.

T. F. Hunter No. 1 S. P. Gibson, sec. 301, W.C.S., 1,170 ft. S and W, NE sec. Drlg. at 2,085 ft.

Tom Medders No. 1 Fassett, sec. 1 E.T. A-76. Spudding.

Reno Oil Co. No. 1 W. T. Waggoner-D, sec. 1, S.&M. Sur. A-393. Drlg. 571 ft.

Wilbarger County

Bason Drlg. Co. No. 1 W. T. Waggoner-B, sec. 5, H.T.&C. Sur. Blk 5. Drlg. 1,745 ft.

Franklin Oil Co. No. 1 D. G. Feller et al, sec. 168, Blk. 14, H.&T.C. Sur. S.D. 1,570 ft.

Hamilton Pet. Co. No. 1 Waggoner B, sec. 65, Blk. 14, H.&T.C. Sur. Drlg. 1,250 ft.

Lane & Simons No. 1 Allison, sec. 43, H. &T.C. Sur., Blk. 13. Moving in rotary.

Ed S. Smith et al No. 1 W. T. Waggoner, sec. 50, Blk. 14, H.&T.C. Sur. Sd. 1,850-53 ft.; R.U.S.T.

Smith No. 1 S. A. Dill et al, sec. 32, Blk. 14, H.&T.C. Sur. S.D. 2,090 ft.

Wheeler et al No. 1 W. T. Waggoner, sec. 99, H.&T.C. Sur., Blk. 14, Drlg. 1,250 ft.

Young County

L. T. Burns No. 1 C. E. Braune, T.E.&L. Sur. 188. Location.

Christie Bros. No. 1 Primitive Baptist Church, S. L. Hill Sur. A-126. Drlg. 3,-814 ft.; line; S.O. 3,812-14. C.O.

C. C. Counts No. 1 W. E. Edwards, T.E.& L. Sur. 71. Loc.

Curtis & Bracken No. 1 Allar Co., H. Garmes Sur. A-104. Drlg. 3,698 ft.

C. E. Knox No. 1 Washam, Blk. 8, sec. 14-12, T.E.&L. Sur. Drlg. 2,600 ft.

Dobbs Oil Co. and McLester No. 1 Vasquey, J. Busse Sur. A-1,570. Drlg. 3,320 ft.

Nash & Windfohr No. 1 W. S. Simms, D. Franklin Sur. A-1,425. Drlg. 2,075 ft.

C. D. Neff et al No. 1 W. A. Dennis, C. F. Bass Sur. Fishing.

Pitzer & West No. 1 Harrell, J. Daily Sur. A-78. Rig.

Pitzer & West No. 1 McCluskey, sec. 1,104, T.E.&L. Sur. A-327. H.F.W.; U.R. 10-in. to 2,330 ft.; O.S. 2,747-49 ft.; flowed 80 bbls. 12 hours, testing.

Pitzer & West No. 1 S. L. Thornton, sec. 1,015, T.E.&L. Sur. A-824. Drlg. 2,333 ft.

Rathke Oil Co. No. 2 J. T. Rogers, S. H. Graham Sur. A-124. Drlg. 3,600 ft.

A. T. Strong No. 1 Manley. Drlg. 1,950 ft.

Rocky Mountain Runs

Estimated average daily pipe line runs from Rocky Mountain fields in week ending March 28 follows:

WYOMING

	Bbls.
Salt Creek	16,400
Big Muddy	1,540
Badger Basin	40
Byron	1,030
Dallas Derby	560
Dutton Creek	40
Elk Basin	650
Ferris	20
Frannie	1,300
Grass Creek	2,240
Hamilton dome	910
Hudson	250
LaBarge	1,230
Lance Creek	3,590
Lost Soldier	1,000
Midway	50
Oregon Basin	1,910
Osage	600
Pilot Butte	20
Rock River	1,970
Poison Spider	90
Teapot	10
Total Wyoming	35,510

MONTANA

Buckley-Border	120
Cat Creek	710
Cut Bank	6,240
Dry Creek	1,390
Kevin-Sunburst	3,670
Lake Basin	50
Pondera	870
Total Montana	13,050

COLORADO

Florence	160
Fort Collins and Wellington	340
Iles dome	3,120
Moffat	440
Orchard	60
Rangely	70
Tow Creek	180
Total Colorado	4,370

NEW MEXICO

Artesia	630
Cooper area	8,330
Eunice area	14,960
Hobbs	26,810
Hogback	200
Jal	3,410
Lea	950
Maljamar	1,670
Monument	3,060
Rattlesnake	750
Table Mesa	90
Total New Mexico	60,860
Total Rocky Mountain region	113,790

Gulf Coast Water Shipments—January, 1936

Company, terminal—	Crude—Coastwise	Crude—Exports	Refined—Coastwise	Refined—Exports	Total
Atlantic Pipe Line Co.:					
Atreco	1,631,732.69	62,532.31	10,860.12		1,705,125.12
Texas City	339,350.05		4,939.45		344,289.50
Harbor Island	628,763.13				628,763.13
Coastal Refineries*:					
Taylor	39,045.47		4,423,370.83		4,462,416.30
Gulf Oil Corporation:					
Port Arthur	445,109.46		2,006,392.48	273,247.85	2,724,749.79
Humble Oil & Refg. Co.:					
Baytown	216,132.13		3,104,884.23	510,850.69	3,831,867.05
Harbor Island	1,911,859.44	105,055.21			2,016,914.65
Texas City	631,181.54				631,181.54
Ingleside	95,751.83				95,751.83
Neches	71,268.62				71,268.62
Magnolia Petroleum Co.*:					
Beaumont	1,010,993.92		2,417,312.88		3,428,306.80
Pure Oil Company:					
Smiths Bluff	447,353.00		752,602.00		1,199,955.00
Shell Petroleum Corp.:					
Houston	162,565.00		1,582,212.00	83,667.00	1,829,544.00
Norco			486,865.00		486,865.00
Standard Oil Co. of La.:					
Baton Rouge	305,306.99		1,631,845.00	360,289.00	2,297,440.00
Sun Pipe Line Co.:					
Sabine Pass and Sun	1,361,297.24				1,361,297.24
Texas Company:					
Port Arthur	1,369,932.00	646,762.00	2,174,323.00	663,337.00	4,854,354.00
Miscellaneous	2,033,043.17	165,721.89	1,110,508.37	474,002.01	3,783,275.35
Total, Jan., 1936	12,701,675.69	980,071.32	20,706,215.36	2,365,393.55	36,753,355.92
Total Dec., 1935	11,770,336.36	1,306,388.86	16,699,897.64	2,776,680.59	32,553,283.45
Difference	931,339.33	326,317.54	4,006,317.72	411,287.04	4,200,072.47

* No distinction made between coastwise and export shipments.

Market Record of Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforsheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1936 High	1936 Low	Week ended March 28 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
125½	75	5,000	115	106⅜	109⅝	Amerada Corp.	788,675	N.P.	50cQ	3-16-36	$2.00	80	48½	55⅝	39
34	27⅛	25,200	33¼	31	32¾	Atlantic Refining	2,664,904	$25	25cQ	12-16-35	1.00	28	20½	35¼	21½
18⅜	14⅛	18,600	17¾	16⅞	17¼	Barnsdall Corp.	2,195,397	$5	15cQ†	2-1-36	‡.20	14¾	5⅞	10	5⅞
20⅝	14	224,900	20⅜	18½	19⅝	Columbia Gas & Elec.	11,610,086	N.P.	20c	11-15-35	.20	15¾	3⅜	19¼	6⅝
15¼	11⅞	53,600	15	14⅛	14¼	Consolidated Oil Corp.	13,996,072	N.P.	25c	4-7-36	.25	12¼	6½	14¼	7¼
38½	33½	28,800	37	35½	36¼	Continental Oil of Delaware	4,682,722	$5	25c	4-30-36	.62½	35	15⅛	22¾	15¾
34¾	22	6,200	33⅜	31¼	31½	General Asphalt	387,149	$10	25c	12-17-35	.25	22½	11¾	23½	12
12¼	6⅜	17,200	11⅜	10⅝	10⅞	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	7	1½	5⅝	2½
22	18¼	24,682	22	20⅛	21⅞	Mid-Continent Petroleum	1,857,912	$10	25c	12-2-35	.40	20½	9½	14⅜	9⅛
38½	19⅞	8,400	37¾	35¼	35½	National Supply of Delaware	382,591	$25	....	5-15-31	....	20⅞	9	21⅛	10
17½	13½	24,300	15⅞	14⅝	14¾	Ohio Oil Co.	6,563,377	N.P.	15cSA	12-14-35	.30	14¼	9¼	15⅞	8½
18	13⅛	1,800	15⅞	15	15	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.25	14	6¾	9⅜	5½
3⅝	1⅜	900	2⅞	2½	2½	Panhandle P. & R.	198,770	N.P.	....	.....	....	1⅞	½	2½	⅝
49	38⅛	50,200	49	45	48	Phillips Petroleum	4,154,687	N.P.	50c†	2-29-36	1.25	40	13¾	20¾	13⅜
15¾	11⅞	37,700	15¾	14⅞	15¼	Plymouth Oil Co.	1,050,000	$5	25c	3-30-35	.25	13	6½	16¾	7¼
24⅞	16⅝	59,800	24½	22½	23	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	17	5¾	14⅞	6⅛
57	48⅜	1,500	56	53⅞	56	Royal Dutch N. Y. shares	fl. 503,642,000	fl. 100	$1.70	8-1-35	1.70	48½	29½	39⅛	28⅝
43⅝	33¼	11,600	40¾	37¾	37¾	Seaboard Oil of Delaware	1,244,283	N.P.	15cQ†	3-14-36	1.00	36⅞	20¾	38⅜	20¾
19¼	15¼	16,300	18⅜	17¼	17¼	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	16½	5½	11½	6
120	110½	500	116½	116	116	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	111	63⅛	89	57
6¾	5	3,900	5⅛	5	5	Simms Petroleum	461,698	$10	1.25 liq.	10-18-35	11.75 liq.	18¾	4⅜	17⅛	7¼
31½	19½	10,700	31½	29	30	Skelly Oil	1,008,514	$15	....	12-15-30	....	20½	6½	11½	6
17	14⅛	75,800	15	14⅛	14⅛	Socony-Vacuum	31,154,379	$15	20cSA	3-16-36	.30	15⅜	10⅝	19⅞	12½
47⅝	39⅞	11,800	46¼	43¾	44⅛	Standard Oil of California	13,102,900	N.P.	25cQ†	3-16-36	1.00	41⅛	27¾	42⅞	26½
40⅛	32¾	19,000	39⅛	37⅛	37¼	Standard Oil (Indiana)	15,215,677	$25	25cQ	3-16-36	1.00	33⅜	23	32⅝	23¼
30	25	200	26	25	25	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	....	32	20	41	26
70	51⅛	67,000	68	64⅝	64¾	Standard Oil of New Jersey	25,856,081	$25	50cSA†	12-16-35	‖1.25	52⅜	35¾	50⅛	39¼
91	72	500	89	85½	85½	Sun Oil	1,733,013	N.P.	25cQ	3-16-36	$1 & 7% Stk.	77	60½	74¼	51½
39⅛	28⅞	40,700	39⅛	37⅜	38	Texas Corp.	9,486,417	$25	25cQ	4-1-36	1.00	30¼	16½	29⅜	19⅝
15¼	7½	25,100	13¼	11⅞	12½	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	9¼	3¼	6½	2½
19⅛	14⅜	19,400	18½	17⅞	18	Tide Water Associated	5,631,341	N.P.	25c	1-15-36	....	15⅞	7⅝	14⅜	8
106½	100⅝	500	104¾	103⅞	103⅞	Tide Water Associated pfd.	666,524	$100	$1.50Q	1-2-36	§6.50	104½	84	87	64½
28½	23⅛	5,900	26⅞	26	26⅛	Union Oil of California	4,386,070	$25	25cQ	2-10-36	1.00	24	14¾	20½	11½
31⅝	22⅝	800	28⅞	28½	28½	Union Tank Car Co.	1,200,000	N.P.	30cQ	3-2-36	1.20	26½	20⅞	25¾	15⅝
4⅞	2¾	49,200	5⅛	3¾	5⅛	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	3⅛	1	5¾	2

*Ex-dividend. †Plus extras. ‡Also 50 per cent in stock of Barnsdall Ref. §Partly on account of accumulation. ‖Dividend 4/75 Mission Corp. paid 3-15-35.

Market Record of Active Oil Stocks Listed on New York Curb

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1936 High	1936 Low	Week ended March 28 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
18¼	13¼	2,800	17¼	16⅛	16¼	Bridgeport Machine Co.	150,000	N.P.	....	5-1-30	....	14⅛	3¾	3¾	⅛
50	39¾	100	45	44	45	Buckeye Pipe Line Co.	200,000	$50	75cQ	3-14-36	$3.00	42½	30½	38	26
4⅞	2½	6,400	3½	3⅛	3¼	Caribb Syndicate	799,020	25c	....	.....	....	4¼	1⅝	5½	1½
124¾	115	200	116½	115	115	Chesebrough Mfg. Co.	120,000	$25	$1Q†	3-31-36	6.50	157	115	150	116
7⅜	3	84,800	5⅝	5⅛	5¼	Cities Service	37,804,394	N.P.	....	6-1-32	....	3¼	¾	4¼	1¼
4	1⅛	13,800	3⅜	2⅞	3⅛	Colon Oil	2,200,000	N.P.	....	.....	....	2⅛	½	3¼	½
4⅛	1½	71,700	4	3⅜	3⅜	Cosden Oil	399,687	$1	....	.....	....	1½	¼	3⅞	½
34¾	19⅞	10,100	30½	28½	28½	Creole Petroleum	6,974,356	$5	20c	12-31-35	.20	23¾	10	14⅜	9⅝
11	9	3,100	11	10	11	Darby Petroleum	509,696	$5	25cSA	1-15-36	.50	8⅞	4	7½	4⅛
3⅞	1⅞	3,100	3⅞	3⅜	3⅝	Derby Oil & Refining	263,162	N.P.	....	.....	....	2	¾	2¼	1
44	39	50	42	42	42	Eureka Pipe Line	50,000	$50	$1Q	2-1-36	4.00	38	33¼	37	30
98	72	5,600	96¾	92¼	92¼	Gulf Oil Corp.	4,538,101	$25	25c	4-1-36	....	74¾	50¼	76¾	49¾
76½	62½	3,800	74⅜	72	72	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	4-1-36	1.25	64	44	49½	33¼
24½	20	7,900	23⅜	22½	22⅜	Imperial Oil of Canada	26,919,871	N.P.	62½cSA†‡	12-2-35	1.25	22½	15⅜	17⅞	12⅝
9¼	5½	800	7¾	7⅝	7¾	Indiana Pipe Line	300,000	$10	15cSA†	11-15-35	.35	6⅛	3⅝	6⅞	3⅝
39⅜	33½	7,900	37¼	36⅛	36¼	International Petroleum	14,247,088	N.P.	$1.25†‡	12-2-35	2.50	39¾	28	33⅜	19⅜
15⅛	9⅞	29,500	15⅛	14	14⅜	Louisiana Land & Exp.	3,000,000	N.P.	10cQ	3-16-36	.10	11⅜	4⅜	5	2⅛
14½	7⅜	6,200	14½	10¼	14¼	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	8¼	3½	6	3⅜
14¼	9⅞	5,400	14	13⅜	13½	Lone Star Gas	5,382,723	N.P.	20cSA	1-15-36	.30	10⅞	4½	8⅜	4¼
8⅜	5	2,200	7¼	7	7⅛	Mountain Producers	1,682,182	$10	30cSA	12-31-35	.90	5¾	4⅛	5½	4
23	19¼	1,900	21⅞	21½	21⅜	National Fuel Gas	3,810,183	N.P.	25cQ	4-15-36	1.25	20	11¾	18⅛	13⅛
15¾	10¼	300	12½	12⅜	12⅜	National Transit	509,000	$12.50	35cSA	4-15-36	.75	10⅝	6¾	9½	7
4½	2⅞	1,100	3½	3¼	3½	New Bradford Oil	1,445,202	$5	10cSA	9-16-35	.20	3¼	2	2½	1¾
6⅝	1⅝	1,600	4⅞	4¼	4¼	New Mexico and Arizona	1,000,000	$1	....	.....	....	2½	1	2¾	1
6¼	4½	200	6⅛	6	6⅛	New York Transit	100,000	$5	15cSA	4-15-35	.30	4⅞	3	4¾	3
9¼	7	300	7½	7¼	7¼	Northern Pipe Line	120,000	$10	25cSA	2-2-36	.50	8	5¼	7	4⅝
6⅛	3¼	27,700	5⅜	5	5⅛	Pantepec Oil	1,608,700	N.P.	....	.....	....	4⅜	1¼	2⅝	⅞
18¼	4½	49,300	18¼	13⅜	17⅞	Root Petroleum Co.	336,045	$1	....	.....	....	5	1½	....	....
3¾	1⅞	16,500	3¾	2⅝	3½	Ryan Consolidated	296,931	N.P.	....	.....	....	2½	⅝	3⅜	⅞
10	7	2,200	8⅝	8¼	8⅝	Salt Creek Producers	1,496,859	$10	40cSA	12-31-35	1.20	7½	5½	7⅞	5½
39	32¼	4,100	39	38¼	38½	South Penn Oil	1,200,000	$25	50c†	3-31-36	1.35	34½	21⅝	26½	17½
7⅞	4⅜	200	6	6	6	Southern Pipe Line	100,000	$10	15cSA	3-2-36	.30	5	3⅞	5¼	3½
56	54	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	4-1-36	5.00	56	44¼	47	41
23⅜	18⅜	3,200	19⅜	19	19⅛	Standard Oil of Kentucky	2,604,790	$10	25cQ†	3-16-36	1.25	24	18	18⅜	14⅝
14⅝	11½	1,400	14	13⅛	13¾	Standard Oil of Nebraska	188,403	$25	....	6-20-34	....	12	7¾	16⅞	8¼
32¼	21¾	2,200	31¾	29	30	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	23⅝	11½	28½	12½
4¼	2⅝	22,800	3⅝	3⅛	3⅜	Sunray Oil	1,610,810	$1	....	4-15-31	....	2⅞	⅞	2	⅟₁₆
9⅜	6	2,200	8⅛	7½	7¾	Texon Oil & Land	336,028	N.P.	15cQ	3-31-36	.60	6⅞	5	11	4⅝
7½	4½	13,000	6¼	5⅝	5¾	Texas Gulf Producing Co.	888,063	N.P.	....	12-29-34	....	4¾	2½	7	3⅜

*Ex-dividend. †Includes extras. ‡Payable in Canadian funds.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

PERSONAL

FRANK B. LONG, vice president of the Oklahoma Natural Gas Corporation, was elected president of the Tulsa Rotary Club at its annual meeting last week. Mr. Long, one time newspaper man, has been one of the foremost advocates of the conservation of natural gas. He was one of the first to give publicity to the fact that more than 1,000,000,000 feet of gas was being wasted daily in the Texas Panhandle fields. Mr. Long presented a paper on "The Trend of Natural Gas" at the meeting of the Oklahoma Utilities Association last week.

P. E. SPELLACY, president, and VICTOR H. ROSSETTI, vice president, were reelected at the annual meeting of the Mascot Oil Company, held in Taft, Calif., this week.

BEN TAXMAN, of the Cisco Oil & Refining Company, Chase, Kans., was a business visitor in Tulsa the past week.

G. G. MORTIMER, oil operator of San Antonio, is spending a week at Mineral Wells, Tex., recovering from a short illness.

SAM KORNFELD, geologist, was in Tulsa on business the past week. He also visited in Oklahoma City before returning to his headquarters in Wichita, Kans.

ROBERT RAPP, president of Denver Producing & Refining Company, Oklahoma City, Okla., has been confined to his home during the past week through illness.

GEORGE A. DYE, of Wilcox Oil & Gas Company; ALVIN RICHARDS and KEN COVELL, of Pure Oil Company, and J. K. McGOLDRICK, Texas Pipe Line Company, were among Tulsans who attended to oil business at the state capitol in Oklahoma City the past week.

C. L. MAGUIRE, president of the Roosevelt Refinery, of Mount Pleasant, Mich., and HENRY G. HUNT, executive secretary of the Oil and Gas Association of Michigan, were speakers at a meeting last week of the Mount Pleasant branch of International Rotary at which about 60 executives of the Michigan oil industry were guests.

R. E. RYERSON, export manager, has been appointed general sales manager in charge of the wholesale industrial products and export sales division of Tide Water Oil Company. A. J. DU PONT has been appointed assistant export manager, D. E. HOFFMAN manager of the wholesale marketing department and H. G. MULLEN manager of the industrial products department.

F. W. SEYMOUR of New York City and R. E. DAVIS of Pittsburgh, Pa., made their annual inspection trip recently to the plants of Northwestern Utilities, Ltd., in Edmonton, Alberta, and the Canadian Western Natural Gas, Light, Heat & Power Company at Calgary.

H. E. BRIGDEN, of the Associated Oil Company, has been appointed supervisor of accounts of the manufacturing division at Avon refinery, succeeding R. D. RICHARDSON, who was recently appointed assistant comptroller and transferred to the company's headquarters at San Francisco.

J. B. FURSTENBERG, president of the Glenridge Oil Company, of St. Louis, Mo., has taken a house in Denver, Colo., and moved his family to that city. A general office will be opened at 1925 Broadway. Mr. Furstenberg has been identified with producing properties in Texas for the past 16 years and is becoming associated with the Colorado development and will make a specialty of handling seasoned royalties.

S. J. SACKETT of Hi-Way Oils, Ltd., of Regina, Saskatchewan, recently made a business trip to Edmonton and other Alberta points.

H. L. GENTRY, consulting engineer and oil and gas well fire expert, gave a demonstration of prevention measures before a group of about 60 operators, producers and field workers in Mount Pleasant, Mich., recently. He was assisted by EDWARD MAHONEY of the Michigan Public Utilities Commission, Lansing, Mich.

H. M. MOSHER, chairman of the board of the Signal Oil Company; S. B. MOSHER, president and general manager; O. W. MARCH, vice president and treasurer; R. H. GREEN, vice president, and H. J. MARCH, secretary, were reelected to their respective offices at the annual meeting of the company in Los Angeles, Calif.

F. A. LEOVY, of Pittsburgh, Pa., vice chairman of the board of the Gulf Oil Corporation and chief of its production activities; W. B. PYRON of Houston, Tex., vice president in charge of operations in the Southwest; RUSH GREENSLADE of Tulsa, vice president in charge of Oklahoma and New Mexico, and K. C. HEALD, Pittsburgh, Pa., chief geologist, have just completed an inspection trip of the company's properties in New Mexico and Texas.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

The Jarecki Manufacturing Company has entered the Oklahoma field and has rented a storeroom in Tulsa.

The Mellon National Bank of Pittsburgh, Pa., has increased its capital stock from $4,000,000 to $6,000,000 by declaring a 50 per cent stock dividend to its stockholders.

The deepest well in the United States is near West Elizabeth, Pa. It is bottomed at 5,575 feet. The deepest well in the world is in Germany and is 6,572 feet deep. Native drillers in western China penetrated to 3,600 feet with "home made" tools and a cable made of twisted strands of rattan.

Isaac Johnson, inventor of portland cement, is living in England at the ripe old age of 100 years.

20 YEARS AGO

Dr. W. F. Rittman has resigned his position with the Department of the Interior to go into private business.

Some oil producers in Osage and Washington Counties, Oklahoma, are of the opinion that oil will be found below the Mississippi lime, but none of them has had the courage to try to penetrate the lime below the "first break," where gas has been found.

The total average daily production of oil in Kansas, Oklahoma, Louisiana and Texas is 452,825 barrels.

10 YEARS AGO

The Indian Territory Illuminating Oil Company, which drilled the first producing well in the Seminole field in Oklahoma, is pioneering in the conservation of gas pressure in the discovery well. By choking in the well, which had an initial production on March 12, of 1,086 barrels, it gradually reduced the volume of gas per barrel of oil, and more than maintained the initial production of the well up to date, keeping the gas in the sand, which is expected to greatly lengthen the flowing life of the well.

Twenty Oklahoma and Kansas gas companies have been merged into a $10,000,000 corporation under the control of the Southwestern Gas Company with headquarters in Independence, Kans

J. E. WINANS, oil operator of Fort Worth, Tex., is now convalescing at his home in that city after a surgical operation at Temple, Tex.

M. (BINK) MANNING, vice president of the Sterling Oil & Refining Company at Houston, has returned from a six weeks' vacation spent in Hot Springs and New Orleans.

J. E. MOORHEAD, secretary of the Pennsylvania Grade Crude Oil Association, has been named to the chairmanship of the commercial group for the 1936 Community Fund campaign in Oil City, Pa.

W. H. BEHRENS, office manager for the American Liberty Oil Company, Kilgore, Tex., suffered a nervous breakdown on March 21, while at work. He was taken to Dallas for medical treatment and is improving.

VAN D. BENNETT, formerly with Derby Oil Company, Wichita, Kans., joined the production department staff of the British American Oil Producing Company April 1 and will be located in Tulsa for the time being.

CLYDE CANTRELL, Mount Pleasant, Mich., has been elected president of the newly organized Cryden Oil Company, a $500,000 Michigan development concern. ALLEN GRAY, Pontiac, Mich., is vice president; HASWELL W. GRANT, Mount Pleasant, secretary, and RAYMOND S. HUNT, geologist.

G. B. TRELOAR, former vice president of the Old Dutch Refining Company, Muskegon, Mich., and now vice president in charge of sales of the Paragon Products Corporation of Oshkosh, Wis., and FRANK D. TURNER, president of the Paragon, were Muskegon visitors last week at the home of MR. AND MRS. GUILFORD SHAW TURNER. Mr. Turner is an officer of the Old Dutch Company.

PARAGRAPHS

J. A. WILLIAMSON of the Montreal-Alberta Oil Company of Wainwright, Alberta, is on a business trip to Toronto and Montreal.

BILL WISDOM, formerly farm boss of the Van Joint Account for the Pure Oil Company in the Van field, Texas, has been made superintendent of the Carroll district by the company. C. O. DENNING, superintendent of the Carroll district, which is part of the Van field, has been made drilling superintendent of the Van field.

E. R. FILLEY, manager, and H. N. PARDEE, assistant manager, of the Oklahoma-Kansas-Kentucky division of the Texas Company, conducted the annual meeting of production superintendents in the three states at the Tulsa offices Tuesday and Wednesday. About 12 superintendents and several engineers attended the conference.

O. R. WALLS, who has been scouting the Oklahoma City district for the Texas Company, has been transferred to the land department office in Tulsa. BERRY M. SMITH, formerly in the geophysical department, replaces him at Oklahoma City. C. S. McGHEE, formerly with the proration department of the Kansas Corporation Commission, is the new Texas Company scout in Kansas, succeeding PAUL M. YOUNGMEYER, who has been transferred to other duties, working out of the Tulsa office.

EMBY KAYE, vice president in charge of manufacturing for Skelly Oil Company, discussed "Some Refining Trends" at the monthly meeting of the Tulsa Chapter of the American Petroleum Institute. RAY E. MILLER, of Hanlon-Buchanan, Inc., is chairman of the Tulsa chapter.

CLARK C. WREN, recently resigned federal attorney in Washington, D. C., has been appointed by ATTORNEY GENERAL WILLIAM McCRAW of Texas, as special assistant to determine whether penalty suits should be filed against Panhandle field operators for violations of gas-wastage law.

FRED VAILE, of the West Coast Refining Company; J. H. ROUNSAVEL, of the Signal Oil Company; J. S. WATSON, of the Shell Oil Company; C. E. SPANGLER, of the Western States Gasoline Company, and W. A. RUSSELL, of the Seaboard Oil Company, presented a number of interesting papers at the last monthly meeting of the Petroleum Accountants Society held in Los Angeles, Calif. FERO WILLIAMS, of George F. Getty, Inc., is president of the society.

C. B. SIMON, of Tulsa, assistant treasurer, Marathon Oil Company, is the new president of the Marathon Employes Club, succeeding R. B. COOK. He has been with the company or its affiliates 27 years, starting with the Illinois Pipe Line Company in 1909. Other new club officers are W. J. WILSON, assistant secretary, club vice president; ANNE C. CURREN, land department, secretary; J. W. STINSON, JR., cashier's department, treasurer. Trustees are W. H. FRIBERG, W. O. STROTHER, KATHRYN HOPPEL, G. H. THOMPSON, C. P. GREEN, F. W. WEISS and AMOS MAYTUM.

H. S. WATTS, secretary-treasurer of the Canadian Western Natural Gas, Light, Heat & Power Company, paid an official visit to the company's Lethbridge, Alberta, office recently.

R. A. JOHNSON, of the Atlas Supply Company, has been transferred from Wichita, Kans., to the Tulsa office.

JOHN M. LOVEJOY, president of the Seaboard Oil Corporation, is spending several days at the company's division offices in Dallas, Tex.

HAROLD NEELY, president of the Iron Mountain Oil Company, Fort Worth, is spending a couple of weeks in Lima, Ohio, on company business.

G. CLARK GESTER, chief geologist of the Standard Oil Company of California, San Francisco, spent a week in the subsidiary's office at Dallas.

R. P. CLARK, Tulsa representative of the Norvell-Wilder Supply Company, was a recent business visitor at the Houston, Tex., offices of the company.

WILLIAM S. SCULLY, of Los Angeles, legal counsel for the Independent Refiners Association of California, last week announced the arrival of his first born son.

A. H. FLAHERTY and ALLEN H. FLAHERTY of the firm of Flaherty & Son, drilling contractors, of Tulsa, have opened an office in Midland, Tex., from which they will contract to drill in the New Mexico and West Texas fields.

H. D. BRENNAND of Dallas, Tex., in the land department of the California Company, has been transferred from Dallas to Houston. H. T. RICHARDSON, geologist, has been transferred from San Antonio to Houston, and K. H. CRANDALL has been appointed to supervise the geophysical work to be carried out on the floor of Galveston Bay. V. GAGE LUND has been made superintendent of Houston district by the company.

He Has Traveled Fast

C. V. Sidwell, general superintendent of the British-American Oil Producing Company, has traveled fast. By which is meant merely that it has taken him a short time to go a long distance in the oil business. He is only 34 now. After receiving his bachelor of science degree in 1923 from the University of Oklahoma, where he had majored in geology, he went back and studied another year for a master's degree, at the same time teaching freshman geology.

C. V. SIDWELL

On leaving the university in 1924 young Sidwell went to Tampico, Mexico, as a geologist for the Cortez Oil Company. The next year he took a position with Huasteca Petroleum Company as a petroleum engineer and soon he became assistant general superintendent. In 1928 he returned to Oklahoma, joining the Amerada Petroleum Corporation as production engineer, with headquarters in Seminole. He remained with Amerada until May, 1935, when he entered the service of British-American as general superintendent.

Mr. Sidwell was born in Boulder, Colo. A few years later his father's law practice took the family to Imperial, Neb. In 1911 the Sidwells moved to Oklahoma City. There the boy passed his schooldays. He spent two high school summer vacations in the harvest fields. In 1927 Mr. Sidwell married Miss Edith Newblock, whom he had met in his university days. He likes to hunt and fish and plays a fair game of golf. He resides in Tulsa.

JAMES HOOP, of Tulsa, has been transferred to Midland, Tex., by the Sinclair Prairie Oil Company and will scout in the West Texas district.

WALTER WELLS, of the Lane-Wells Company, accompanied by MRS. WELLS, is in New York on a four weeks' business visit.

R. B. VIOLETTE, oil attorney of Fort Worth is convalescing from an appendectomy performed at Cook Memorial Hospital in that city on March 20.

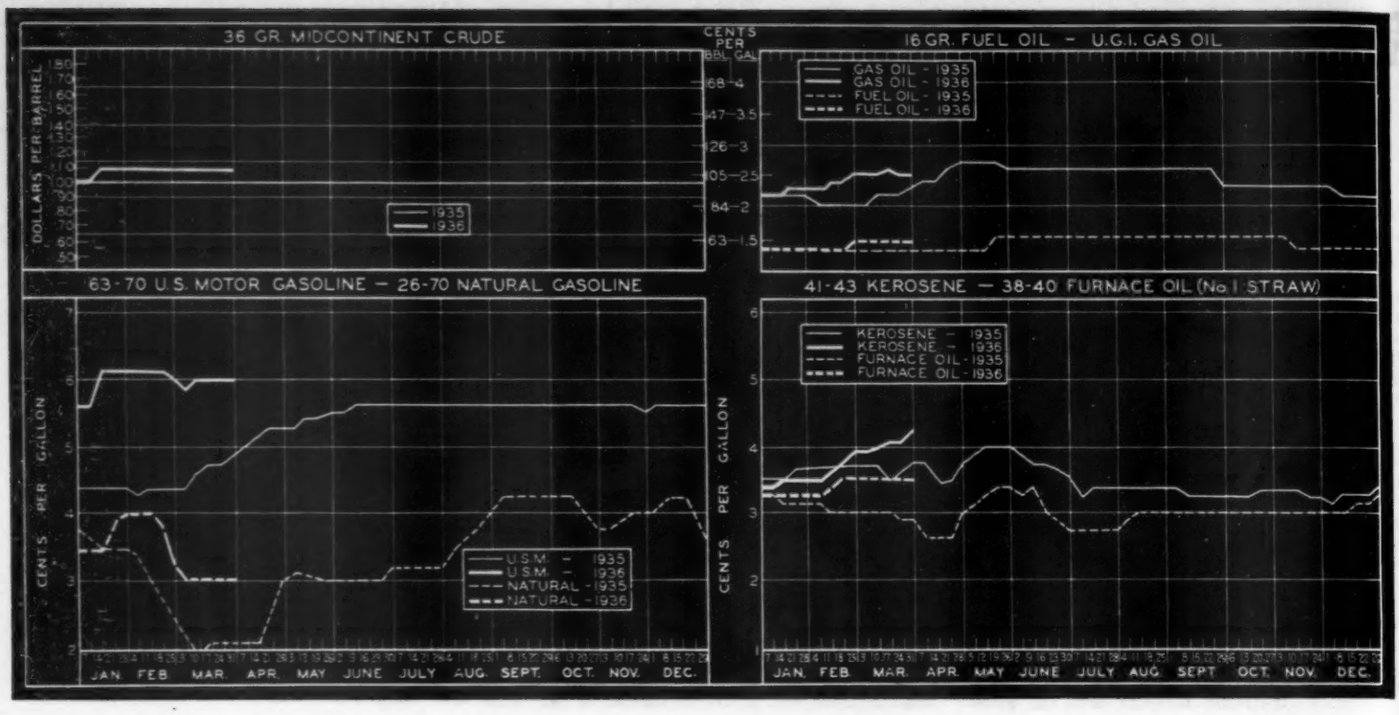
GLENN SKINNER, vice president and general manager of Black, Sivalls, & Bryson, Inc., Oklahoma City, Okla., has just returned to headquarters after a business trip to Texas and Louisiana.

S. B. ROBERTS of Albany, Tex., J. C. HUNTER and R. C. GRAHAM of Abilene, Tex., have organized the S. B. Roberts Company, drilling contractors, and the company will have offices in Abilene, Tex.

J. F. MITCHELL-ROBERTS, of Oliver United Filters, Inc., is making an extended tour of the Far East, contacting the company's representatives in Australia, New Zealand, the Philippine Islands, Japan and Hawaii.

JOSEPH HUGHES, assistant to A. E. SWANSON, head of the Swanson Oil Company, operators in the Crystal Township, Montcalm County, field, has been placed in charge of the company's new office at Alma, Mich.

ED COREY, head of the tubular sales department, and JACOB SIGAL, superintendent of the tubular mills of Youngstown Sheet & Tube Company, Youngstown, Ohio, are in Texas attending a sales conference held in connection with the Continental Supply Company at Dallas.



Group 3 Gasoline Market Steadier as Consumption Seasonally Improves

By D. H. STORMONT

The gasoline market in Group 3 trade territory revealed but little change in tone during the past week and although weather conditions were not favorable in all parts of the country, consumption continued to expand seasonally. With the crest of the floods in the eastern areas now past, there remains only the dust storms to act as a detriment to the market. However, dust storms, though influencing motoring to a certain extent, have not proved to be a general market factor. Refiners throughout the Mid-Continent are well satisfied with the showing made by the industry during the past month, for in spite of the continued cold weather, floods and dust storms the majority found that they either equalled or exceeded by as much as 5 per cent the amount of gasoline they estimated they would ship during the month.

Gasoline Stocks Heavy

Overheavy stocks of finished and unfinished motor fuel in certain districts still remain as a depressing factor on the gasoline market. However, stocks in the Mid-Continent for the weeks ending March 14 and 21 recorded slight declines, thus showing that as the weather becomes more favorable the movement of gasoline from refining centers into the trade territory becomes better. The fact that refiners in the Mid-Continent are holding their daily crude runs at low levels also serves to lessen the danger of stocks becoming too burdensome; some observers being of the opinion that stocks added between now and the spring pickup will be negligible.

Advances in the price of refinery gasoline on the West Coast during the latter part of the past week serves to again remove any threat of motor fuel from that section overflowing into Group 3 trade territory. Stocks of finished and unfinished gasoline held by refiners in that area have shown a huge increase during the past few months, but despite this depressing influence, the gasoline market in that area was reported to be stronger, with higher prices expected in the near future. As a result of the increased refinery prices of gasoline, tank wagon and service station prices in the California trade area will probably be advanced after a period of below normal prices.

Reduction in service station prices throughout the Pacific Coast area served to reduce the 50-city retail gasoline price from 14.22 cents per gallon on March 1 to 13.90 cents per gallon on April 1. Prices in the Mid-Continent generally were not affected during this period and for the most part remained at the points set following the recent crude oil rise. However, the recent stabilization of refinery prices in the West Coast area should result in the restoration of prices at most points.

Refined Oil Market Barometer

The motor fuel market continues steady as consumption seasonally expands and flood condition in the eastern states well past the crest. Dust storms in the middle west are proving not to be major market factor. Demand for fuel oils slackening with prices holding. Tractor fuels and kerosene continue active in demand with market in the middle west tight.

MID-CONTINENT: Gasoline slightly steadier. Kerosene and tractor fuels strong. Wax scarce.

EAST COAST: Gasoline demand improved. Burning oils weak. Export markets firm.

GULF COAST: Gasoline and kerosene firm. Fuel oil tight.

PENNSYLVANIA: Gasoline improving with weather. Kerosene, fuel oils and wax strong.

CALIFORNIA: Gasoline strong with better prices expected. Fuel oil firm.

CHICAGO: Kerosene active with gasoline coasting. Tractor fuels tight.

Kerosene, Tractor Fuels Active

Kerosene and tractor distillates continued to be the liveliest of the refinery products, and although there was no increase in the posted price the market was definitely tight. The demand for tractor fuels was strong, with supplies tight. Refiners who ordinarily enter the season of spring demand with stocks built up in preparation for the demand were not able to do so this year due to the huge demand for furnace oils. Thus most refiners entered the beginning of the consuming season with stocks at low ebb, and since that time the demand has been such that supplies were scarce. The active market for kerosene resulted in Standard Oil Co. (Indiana) generally advancing its tank-wagon prices throughout its trade territory. Naturals remained unchanged, however with the motoring season nearing demand should be increased in the immediate future.

Another bright spot in the market was the fact that heating oils continued to move along with unchanged price. Although the demand is somewhat slackened, continued cold weather in the northern states should serve to bolster the market. However, the fact that these oils have continued to hold their own without a decrease and at a price one-half cent higher than a year ago give many refiners cause to feel that marketing conditions are better. Lubricants showed but little change from the previous week. Although there were no changes in wax quotations, the market was reported strong and supplies scarce.

Eastern Markets Cautious Over Stocks and Flood Effect on Consumption

NEW YORK, Mar. 30.—The gasoline trade here has adopted a more cautious attitude with respect to the price outlook during the past week. The two factors considered to be of most influence are the excessive inventories already on hand, together with the possible loss in consumption due to the floods. It is believed that the damage suffered by thousands of familities throughout the East will be definitely reflected in the demand this summer, unless it is offset by other unforeseen developments. Emergency requirements for aviation gasoline and motor fuel during the past two weeks have served to obscure the more unfavorable aspects of the situation.

Jobbers and dealers nevertheless are feeling generally optimistic due to the favorable weather that has been experienced and glowing reports from the Southwest which tell of the strong position of the crude and refined markets there, with talk of a nearby crude price rise. The more conservative elements in the trade, while not skeptical, nevertheless believe that overoptimism should be curbed at this time until the full effect of the floods on consumption can be gauged.

Basic Situation

Basically the motor fuel situation in the East is stronger than a year ago and the major factors in the market are more concerned with maintaining this improvement than anything else. They would rather take the chance of running a little short before the end of summer rather than to encourage the refiners to step up production in view of the present uncertainties. The best interpretation of the present motor fuel inventory situation is that the stocks are in relatively strong hands. Compared with a year ago it is much more difficult to obtain spot cargo lots of gasoline at the Gulf Coast for shipment to Atlantic ports. This is due mainly to improvement in the East Texas refinery situation, but there are indications that the Rodessa field, if developed intensively on the Texas side of the line, will prove a factor later in the year. In other words, while the present situation has strong features, danger signals should be noted, according to the best opinion in the trade.

An analysis of the over-all situation cannot fail to take into account the inevitable psychology which has so often led to overoptimism and the later unfavorable reaction. On the other hand, it must be admitted that the Atlantic Coast motor fuel trade has many things to be thankful for, aside from the unfavorable flood experiences.

Prices

With 60-64.9 octane motor gasoline quoted here at 7 cents per gallon f.o.b. refinery, the trade is getting 1½ cents per gallon more on its commercial accounts than a year ago. This is an even greater margin of improvement than has been experienced by the Mid-Continent refiners. The eastern tank-wagon markets has kept step with the refinery market in most sections, but in all is not quite as satisfactory as it might be. At the present time the weakest spots in the tank-wagon and retail market are in a portion of the metropolitan New York City district, and in the Philadelphia-Camden territory. As a result of the scramble for gallonage and other factors regarded as purely local in significance, prices in the above sections have been softening now for several weeks. In Philadelphia leading marketers have finally met the situation with a reduction, effective March 27, of 2 cents per gallon in retail quotations. At the same time, dealers' margins were cut from 4 cents to 3 cents per gallon. There has been no general reduction in prices in the New York City area, but in some localities concessions to dealers and consumers are being made.

Burning Oils Weak

Considerable weakness has developed in the market for kerosene and furnace oil during the past week, with price reductions all along the line. The cut in kerosene and No. 1 furnace oil was quite drastic, amounting to three-eighths of a cent per gallon to 4⅞ cents, f.o.b. refinery. Nos. 2 and 4 furnace oil, embracing the bulk of the consumption in domestic heating, will be cut one-fourth cent per gallon, effective March 30, to 4½ and 4¼ cents per gallon, respectively.

This lower price-trend, while seasonal, was somewhat unexpected, but it is attributed to an effort on the part of refiners to encourage consumers to contract now for future requirements rather than to wait until the next winter's season is close at hand.

In the general opinion of the trade, the trend of kerosene and burning oils does not presage any weakness in the market for heavy fuel oils, but the fact that last week industrial fuel oil in tank-car lots was cut one-fourth cent is anything but an encouraging sign. At any rate, price cuts have so far been confined to heating oils. Diesel oil and bunker fuel oil have maintained a firm tone, while gas oil is strong. On the other hand, there is reported to have been a decline in the demand for bunker fuel oil in the past few weeks, as well as for diesel oil for marine use.

Export Markets

European refined petroleum markets have been characterized by a firm tone in motor fuel, with increased consumption and stocks on hand, and weakness in kerosene. Kerosene prices have been reduced one halfpenny per gallon (approximately 1¼ cents) throughout the United Kingdom. Other United Kingdom prices remain firm. Considerable interest has been displayed in the market for Pennsylvania grade lubricating oils on the part of European buyers due to the flood reports, indicating the possibility of reduced production of these lubes for some time to come. However, the Pennsylvania refiners have been able to meet all demands and prices continue unchanged.

The attention of American oil exporters has been focused on the French situation, with the possibility that this country may go off the gold standard in the near future. This might have repercussions in other branches of the international exchange market, and might tend to offset the advantages American exports have enjoyed in some countries due to the devaluation of the dollar. The decline of the French franc with relation to the dollar, to the gold export point, has precipitated a new serious crisis for the gold exchanges. The United States, Great Britain and France has made every effort to avoid a derangement of the foreign exchange markets, but apparently such efforts have been offset by war threats.

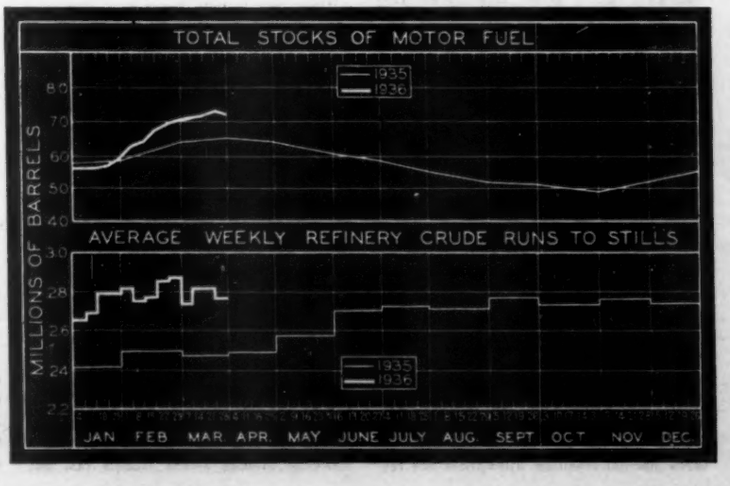
The proposed new Rumanian petroleum bill, now up for hearing in Rumanian Parliament, has also been the subject of some general attention, especially in view of some figures presented in support of the measure by the Rumanian Geologic Institute. These figures tend to indicate a substantial decline.

A. P. I. Weekly Refinery Statistics

Week ending March 28, 1936

	Capacity reporting (per cent)	Daily crude runs (bbls.)	Total gasoline stocks	Gas oil and fuel oil stocks
East Coast	100.0	500,000	18,956,000	6,248,000
Appalachian	94.8	76,000	2,915,000	530,000
Indiana, Illinois, Kentucky	95.9	355,000	11,902,000	2,794,000
Oklahoma, Kansas, Missouri	84.6	255,000	7,495,000	2,547,000
Inland Texas	48.5	91,000	1,876,000	1,429,000
Texas Gulf	96.8	587,000	9,035,000	6,638,000
Louisiana Gulf	96.4	122,000	1,927,000	2,131,000
North Louisiana and Arkansas	90.0	42,000	409,000	389,000
Rocky Mountains	61.9	44,000	1,595,000	696,000
California	92.6	499,000	13,337,000	70,974,000
Total reported	89.6	2,571,000	69,447,000	94,376,000
Estimated unreported	.....	194,000	3,565,000	1,633,000
*Estimated total	.....	2,765,000	73,012,000	96,009,000
*Estimated total previous week	.....	2,815,000	73,157,000	95,378,000
†March 31, 1935	.....	2,472,000	66,290,000	99,380,000

*Bureau of Mines basis currently estimated. †Monthly report, U. S. Bureau of Mines.



Texas Ratable Taking Law Is Invalid

AUSTIN, Tex., Mar. 31.—A three-judge federal court held invalid an order of the railroad commission enforcing the ratable taking provisions for the plaintiffs in the suit of the Texhoma Natural Gas and the Consolidated Gas companies attacking ratable taking provisions of the Texas gas conservation law.

RETAIL OIL MARKETS

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of March 31, 1936

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank-wagon or 3 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Chicago	14.5	16.5	4.0	10.1
Decatur, Ill.	16.0	18.0	4.0	10.1
E. St. Louis	15.7	17.7	4.0	9.8
Joliet	16.0	16.5	4.0	10.1
Peoria	16 0	18.0	4.0	10.1
Quincy	15.8	17.8	4.0	9.9
Davenport, Ia.	16.0	(†)	4.0	10.1
Des Moines	15 8	(†)	4.0	9.9
Mason City	16 2	(†)	4.0	10.3
Sioux City	16.0	(†)	4.0	10.1
Duluth, Minn.	16.8	18 8	4.0	10.9
Mankato	16 4	18.4	4.0	10.5
Minneapolis	16.4	18.4	4.0	10.5
LaCrosse, Wis.	17.4	19.4	5.0	10.5
Green Bay	17.7	19.7	5.0	10.8
Milwaukee	16.8	18.3	5.0	10.4
Madison	17.4	19.4	5.0	10.5
Detroit, Mich.	14.0	16.0	4.0	8.2
Grand Rapids	16.4	18.4	4.0	9.3
Saginaw	16.6	18.6	4.0	9.6
Evansville, Ind.	17.7	19.7	5.0	10.6
Indianapolis	17.9	19.9	5.0	10.8
South Bend	18.1	20.1	5.0	11.0
Fargo, N. Dak.	17.4	19.4	4.0	11.5
Huron, S. Dak.	17.9	19.9	5.0	11 0
Sioux Falls	17.4	19.4	5.0	10.5
Kans. City, Mo.*	15.4	17.4	4.0	9.5
Springfield	15.1	17.1	4.0	9.2
St. Louis	15.7	17.7	4.0	9.8
St. Joseph*	15.4	17.4	4.0	9.5
Wichita, Kans.	14.9	16.9	4.0	7.1
Bartlesville, Ok.	17.0	19.0	5.0	8.8

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers except in Iowa: 2½ cents on premium and regular and 2½ cents on third grade off service station prices; discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Dealers in Iowa sold at posted "Dealer Prices."

Stanolex Fuel Oil in Chicago

Effective February 16, 1936, f.o.b. Chicago tank-wagon prices: Range oil, less than 100 gallons, 8.75 cents; 100-149 gallons, 7.75 cents; 150 gallons and more, 7.25 cents. 1 (36-40 lt. stw. zero), less than 100 gallons, 8.75 cents; 100-149 gallons, 7.75 cents; 150 gallons or more, 7.25 cents; No. 2. (22-26 zero), less than 150 gallons, 7.5 cents; 150 gallons or more, 6.5 cents; No. 4 (12-16 zero), less than 400 gallons, 7.5 cents; 400 gallons or more, 6.5 cents, viscosity of No. 4, 85° and 100° F.; No. 5, less than 400 gallons, 5.75 cents; 400 gallons or more, 4.75 cents.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Denver, Colo.	17.0	19 0	5 0	11 0
Pueblo	17.0	19.0	5 0	11.0
Grand Junction	21.5	23 5	5.0	15.0
Casper, Wyo.	19.5	21.5	5.0	11.5
Cheyenne	19.5	21.5	5.0	12.0
Butte, Mont.	22 0	....	6 0	14 5
Billings	22.5	24 5	6 0	14.5
Helena	22.5	24.5	6.0	14.5
Great Falls	22 5	24 5	6 0	14.5
Salt Lake, Utah	21.0	23.0	5.0	14.0
Twin Falls, Ida.	23 0	25 0	6.0	15 0
Boise	22 5	24.5	6.0	15.0
Albuq'que, N. M.	21 0	23 0	*6 5	13 0

*Includes one-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Atlanta, Ga.	20.5	22.5	7.0	*13.5
Augusta	20.0	22.0	7.0	*14.0
Macon	20.0	22.0	7.0	*14.5
Savannah	18.5	20.5	7.0	*13.0
Birm'ham, Ala.	21.0	23.0	8.0	12 0
Mobile	20.0	22.0	8.0	10.0
Montgomery	22.0	24.0	9.0	14 5
Jackson, Miss.	20.0	22.0	7.0	*13.0
Vicksburg	19.5	21.5	7.0	*13.0
Jacksonville, Fla.	18.0	20.0	8.0	12.0
Miami	19.5	21.5	8.0	13 5
Pensacola	21.5	23 5	9 0	12 0
Tampa	18.0	20.0	8.0	12 5
Lexington, Ky.	19.0	21.0	6.0	11.0
Covington	18 5	20.5	6.0	10.5
Louisville	19 0	21 0	6.0	10.0
Paducah	18 0	19.0	6.0	10.0

*Includes 1 cent state tax. Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax; and 1 cent per gallon on kerosene. Mobile and Birmingham, Ala., each have a city gasoline tax of 1 cent per gallon. Pensacola, Fla., has a city gasoline tax of 1 cent.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
San Francisco	12.5	13.5	4.0	11.5
Los Angeles	12.5	13.5	4.0	9.0
Fresno, Calif.	13 0	14.0	4 0	11.0
Phoenix, Ariz.	16.5	17.5	6.0	‡16.0
Reno, Nev.	15.0	16.0	5.0	13.0
Portland, Ore.	15.0	16.0	6.0	13.5
Seattle, Wash.	15.0	16.0	6.0	13.5
Tacoma	15.0	16.0	6.0	13.5
Spokane	18.0	19.0	6.0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A cent per gallon discount is given dealers and customers taking tank-wagon lots except in Phoenix where discount is 1 cent ‡Includes 5-cent state tax.

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Atlantic City, N.J.	14.3	17.8	4.0	9.0
Newark	14.3	17.8	4.0	7.5
Annapolis, Md.	15.6	19.1	5.0	10.0
Baltimore	15.0	18.5	5.0	8.5
Cumberland	16.6	20.1	5.0	12.7
Wash'g'n, D. C.	13.0	16.5	3.0	9.0
Danville, Va.	17.5	21.0	6.0	12.9
Norfolk	16.0	19.5	6.0	11.3
Petersburg	16.5	20.0	6.0	11.7
Richmond	16.5	20.0	6.0	11.7
Roanoke	17.5	21.0	6.0	12.9
Charles'n, W.Va.	15.8	19.3	5.0	12.6
Parkersburg	15.1	18.6	5.0	11.2
Wheeling	16.0	19.5	5.0	12.2
Charlotte, N. C.	18.7	22.2	7.0	12.9
Hickory	19.0	22.5	7.0	13.1
Mt. Airy	19.0	22.5	7.0	13.2
Raleigh	18.4	21.9	7.0	12.7
Salisbury	18.8	22.3	7.0	13.0
Charleston, S. C.	17.0	20.5	7.0	11.3
Columbia	18.3	21.8	7.0	12.6
Spartanburg	18.7	22.2	7.0	12.9

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Omaha	18.4	20.4	6.0	10.1
McCook	19.1	21.1	6.0	10.8
Norfolk	18.8	20.8	6.0	10.5
North Platte	19.2	21.2	6.0	10.9
Scottsbluff	19.9	21.9	6.0	11.6

Note: Discounts to dealers: where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank-wagon deliveries covered only by Standard Commercial Consumers Contract, effective January 1, 1935.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Philadelphia, Pa.	17.0	19.0	5.0	9.5
Pittsburgh	17.5	17.5	5.0	10.0
Allentown	17.0	19.0	5.0	9.5
Erie	16.5	16.5	5.0	9.0
Scranton	16.75	16 0	5.0	10.0
Altoona	17.5	18.5	5.0	9.5
Dover, Del.	17.0	17.0	5.0	10 0
Wilmington	16.5	16.5	5 0	9.5
Springf'ld, Mass.	14.0	17.5	4.0	7.5
Worcester	13.5	17.0	4 0	7.75
New Haven	13.0	16.5	4 0	7 5
Frovdence, R. I.	12.0	15.5	3.0	7.25

Note—Tank-wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
N. Orleans, La.	18.5	22.0	‡9.0	12.0
Baton Rouge	17.5	21.0	†7.0	11.5
Alexandria	18.5	22.0	††8.0	11.0
Lafayette	19.0	22.5	‡‡8.0	12.5
Lake Charles	19 0	22 5	††8.0	11.0
Shreveport	17.0	20.5	†7.0	11.0
Knoxville, Tenn.	21.0	24.5	8.0	14.0
Memphis	19.0	22.5	8.0	9.5
Chattanooga	20.5	24.0	8.0	11.5
Nashville	20.0	23.5	8.0	10.0
Bristol	18.75	21.5	8.0	14.5

*Includes city tax of 1 cent.

†Includes 1-cent parish tax. ‡Includes 3-cent parish tax.

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM OIL CO., INC.

	Gasoline: Post deal	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Albany, N. Y.	14 0	17.5	5.0	7.75
*Met. N. Y.:				
Manhtn., Bronx	14.2	19.2	5.0	7.25
Staten Island	14.2	19.2	5.0	7.25
Qu'ns & Br'klyn	14.2	19.2	5.0	7.25
Buffalo	14.5	18.0	5.0	8.25
Rochester	14.5	18.0	5.0	8.25
Syracuse	14.5	18.0	5.0	8.75
Boston, Mass.	13.0	16.5	4.0	7.5
Portland, Me.	14.5	18.0	5.0	7.75
Manch'ter, N. H.	15.0	18.5	5.0	8.0
Burlington, Vt.	17.0	20.5	5.0	8.75
Hartford, Conn.	14.5	18.0	4.0	7.0

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Dallas, Tex.	14.0	18.0	5.0	8.5
Fort Worth	1	17.0	5.0	8.5
Houston	13.5	17.0	5.0	8.5
San Antonio	15 0	19.0	5.0	8.5
El Paso	14.0	18.0	5.0	10.0
Muskogee, Okla.	15.0	19.0	5.0	8.0
Okla. City	15.0	19.0	5.0	8.0
Tulsa	15.0	19.0	5.0	8.0
Ft. Smith, Ark.	15 5	19 0	5.0	8.0
Little Rock	18 0	21 5	7.5	9.5
Texarkana	14.5	18.5	5.0	8.5

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Ohio points	17.5	19.5	5.0	*13.5

*Includes state tax of 1 cent.

Canada*

Imperial 3-Star Gasoline

IMPERIAL OIL, LTD.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Hamilton, Ont.	21.0	23.5	6.0	17.0
Toronto, Ont.	21.0	23.5	6.0	17 0
Brandon, Man.	30.8	33.8	7.0	23 5
Winnipeg, Man.	29.2	32.2	7.0	20 7
Regina, Sask.	30.5	33.5	7.0	23 0
Saskatoon, Sask.	33.3	36.3	7.0	24 8
Edmonton, Alta.	32.7	35 7	7.0	24 2
Calgary, Alta	30.0	33 0	7.0	21 5
Vancouver, B. C.	26.0	29.0	7.0	24 0
Montreal, Que.	19.5	23.0	6.0	17 5
St. John, N. B.	25.0	29.0	8.0	19 5
Halifax, N. S.	25.0	29.0	8.0	19.5

*Imperial gallon used in Canada.

Discount to dealers: Divided dealers pay 3 cents per gallon below station price, undivided dealers pay 4 cents per gallon below station price except in cities of Hamilton, Toronto and Montreal where discounts below station price are one-half cent per gallon less.

Retail Price Changes

Standard Oil Co. (Indiana) March 16 advanced tank-wagon kerosene 1.6 cents in Quincy, 2.7 cents in South Bend, 2.2 cents in Huron, 1.2 cents in Sioux City and 1 cent in St. Joseph.

March 30 advanced tank-wagon kerosene .3 cent at all points throughout Illinois, Indiana, Iowa, Minnesota, Wisconsin, Michigan, North and South Dakota, Missouri and Kansas.

Continental Oil Co. March 18 advanced tank-wagon and station gasoline 2 cents in Billings and on the same date advanced tank-wagon and station gasoline 1 cent in Great Falls. March 18 reduced tank-wagon kerosene 3 cents in Butte, Helena and Great Falls; on the same date reduced tank-wagon kerosene 2 cents in Billings.

Standard Oil Co. of California March 26 reduced tank-wagon kerosene 1.5 cents in Los Angeles and advanced tank-wagon kerosene 2 cents in Fresno.

Standard Oil Co. of Nebraska March 21 advanced tank-wagon kerosene 1 cent in McCook.

Standard Oil Co. of Louisiana March 23 advanced tank-wagon kerosene .5 cent in Alexandria, 1 cent in Lake Charles and 2 cents in Shreveport.

Magnolia Petroleum Co. March 13 advanced tank-wagon and station gasoline 1 cent in San Antonio; March 25 reduced tank-wagon and station gasoline 2 cents in El Paso; March 26 reduced tank-wagon gasoline .5 cent and station gasoline 1 cent in Houston; and on March 28 advanced tank-wagon gasoline .5 cent and station gasoline 1 cent in Dallas.

Indiana Profit

CHICAGO, Mar. 30.—Edward G. Seubert, president of the Standard Oil Co. (Indiana), announced today the company's consolidated net profit in 1935 was $30,179,000, equivalent to $1.98 a share on the 15,215,677 shares outstanding at the close of the year.

A. A. Nichoson, personnel director of the Texas Co., of New York, is in Oklahoma this week, the guest of the Mid-Continent Petroleum Safety Council. He spoke at a council meeting in Ponca City Monday night.

PRICES OF REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of March 31, 1936

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
Below 63 octane	.05	.05¼
63-70 octane	.06	.06⅛
60-62 400 grade:		
Below 63 octane	.05	.05¼
63-70 octane	.06	.06⅛
64-66 375	.05⅛	.05⅜
68-70 360	.05¼	.05½

NORTH TEXAS—

U. S. Motor grades:		
Below 63 octane	.05	.05¼
63-70 octane	.06	.06⅛
60-62 400	.05	.05¼
64-66 375	.05¼	.05⅜

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:		
Below 63 octane		.05⅜
63-70 octane	.06⅜	.06¾
60-62 400	.05⅝	.06

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:		
Below 63 octane		.05⅜
63-70 octane	.06⅜	.06¾

CHICAGO (based on Group 3)—

U. S. Motor grades:		
Below 63 octane	.05	.05¼
63-70 octane	.06	.06⅛
60-62 400	.05	.05¼
64-66 375	.05⅛	.05⅜
68-70 360	.05¼	.05½

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:		
Below 60 octane		.05⅝
60-64.9 octane		.07
65-70 octane		.07⅛
64-66 375		.05¾
68-70 350		.06

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.04½	.04¾
58-60 400	.04¾	.05⅛

EAST COAST—

U. S. Motor, below 60 octane:		
*New York (Bayonne)		.06¾
Baltimore		.06¾
U. S. Motor, 60-64.9 octane:		
*New York (Bayonne)		.07
Philadelphia		.07
Boston		.07
Baltimore		.06¾
Charleston, S. C.		.06¾
U. S. Motor, 65 and above:		
*New York (Bayonne)		.07⅛
Philadelphia		.07⅛
Boston		.07⅛
Baltimore		.07
Charleston, S. C.		.07

*All grades of gasoline one-eighth to one-fourth cent less for barge shipments. New York harbor prices are for New York and New England delivery. Prices for New Jersey delivery one-fourth cent lower.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane	.05⅝	.05¾
60-64.9 octane		.06
65 octane and higher	.06⅛	.06⅛

Naphtha

PENNSYLVANIA (inland refineries)—

50-52 450 (blending)		.05½
52-54 450 (blending)		.05½
54-56 450 (blending)		.05⅝

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70	.03	.03½
Grade 18-55	.03¾	.04
Low vapor pressure grade:		
*14 lb. v.p. (max.)	.04½	.04⅝
*12 lb. v.p. (max.)	.04¾	.05

*Nominal.

NORTH TEXAS—

Grade 26-70		.03
Grade 18-55	.03⅝	.03¾

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70		.03⅝

CALIFORNIA—

75-85 375-390	.05	.05⅝

Tractor Fuel

OKLAHOMA (Group 3)—

Deep Rock 40-42 gr., 315-325 i.b.p., 110 flash, 540-550 e.p.	.04½
Mid-Cont. 41-43 gr., 300-350 i.b.p., 110-125 flash, 500-520 e.p.	.04½
Mid-Cont. 46-48 gr., 210-230 i.b.p., 480 max. e.p.	.05

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.04⅛	.04½
42-44	.04⅝	.04⅝

NORTH TEXAS—

41-43	.04⅛	.04½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43	.04⅛

ARKANSAS (Ark., N. La., Miss. del.)—

41-43	.04½

PENNSYLVANIA (inland refineries)—

45	.05½
46	.05⅝
47	.05⅝

CHICAGO (based on Group 3)—

41-43	.04¼	.04⅜
42-44	.04⅜	.04½

CALIFORNIA (Pac. Coast market)—

38-40 high burning test	.03⅛	.05

NEW YORK (Bayonne, N. J.)—

*41-43	.04⅞

GULF COAST (domestic)—

41-43	.03⅞

*Barge price one-eighth cent lower.

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03⅝	.03¾
No. 1 straw, 38-40	.03½	.03⅝
No. 2 straw, 32-36	.03⅜	.03½
No. 2 dark, 32-36	.03¼	.03⅜
No. 3, 28-32	.03¼	.03¼
No. 3, 15 and above, 28-32	.02⅝	.02⅝

NORTH TEXAS—

No. 1 prime white, 38-42	.03⅝	.03¾
No. 1 straw, 38-40	.03½	.03⅝

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.03½	.03⅝

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36		.03¾
No. 3, 28-33	.03⅜	.03½

CHICAGO (based on Group 3)—

No. 1 prime white, 38-40	.03⅝	.03¾
No. 1 straw, 38-40	.03½	.03⅝
No. 2 straw, 32-36	.03⅜	.03⅝
No. 2 dark, 32-36	.03¼	.03⅜
No. 3, zero to 15, 28-32	.03⅛	.03⅜
No. 3, 15 and above, 28-32	.02⅝	.02½

NEW YORK (Bayonne, N. J.)—

*No. 1	.04⅞
*No. 2	.04½
*No. 4	.04¼

*Barge deliveries one-eighth to one-fourth cent under above, tankcar price.

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02½	.02⅝
No. 4, 24-28	.92½	1.00
No. 4, 15 and above, 24-28	.77½	.82½
No. 5	.70	.75
No. 6	.65	.70
Below 18 fuel oil, industrial	.62½	.67½

NORTH TEXAS—

U.G.I. gas oil	.02⅝	.02¾
No. 4, 24-28	.92½	1.00
No. 5	.70	.75
No. 6	.65	.70
Below 18 fuel oil, industrial	.62½	.67½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U.G.I. gas oil	.02⅞	.03
10-14 fuel oil, industrial	.75	.80

ARKANSAS (Ark., N. La., Miss. del.)—

10-14 fuel oil, industrial	.60	.65

CHICAGO (based on Group 3)—

U.G.I. gas oil	.02⅝	.02½
No. 4, 24-28	.95	1.00
No. 4, 15 and above, 24-28	.77½	.82½
No. 5, 18-22	.72½	.75
No. 6, 10-16	.62½	.67½

Fuel oils of more than 40 cold test generally 5 to 15 cents per bbl. in these areas.

PENNSYLVANIA (inland refineries)—

36-40	.04½	.04⅝

CALIFORNIA—

Los Angeles:		
30-34 gas oil, per bbl.	1.05	1.20
27 plus diesel	1.05	1.25
27 plus diesel (bunkers)	1.20	1.30
12-16 (bunkers at tidewater)	.85	.95
10-16 (cargo lots)	.80	.95
12-17 (tankcars)	.70	.95
San Joaquin Valley:		
10-18 (tankcars)	.65	.75
San Francisco:		
27 plus diesel, per bbl.		1.30
27 plus diesel (bunkers)		1.35
10-16 (bunkers)		1.00

GULF COAST—

28-30 gas oil	.03¼	.03⅜
28-30 diesel (bunkers)		1.50
Bunker C (bulk cargoes)		.80
Bunker C (bunkers)		.90

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil		.04¾
28-30 diesel (lighterage 6¼ plus per bbl.)		1.65
28-30 diesel (tankers)		.04½
*Bunker C (to ocean-going ships in N. Y. harbor)		1.05
Industrial fuel (tankcars)		.04

*Lighterage charge 5c bbl. additional.

Bright and Steam-Refined

OKLAHOMA (Group 3)—

Bright Stocks:		
190-200 D, 15-25		.20
150-160 D, 0-10		.17
150-160 D, 15-25		.16½
150-160 E, 15-25		.16
100-110 D, 0-10		.15¾
Steam refined:		
630 green (treated)		.10½
600 light green (untreated)		.09
600 dark green (untreated)	.06½	.07½

PENNSYLVANIA—

Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 510; 540-550 flash):

10 pour test	.22	.22½
15 pour test	.21	.21½
20 pour test	.20	.20½
25 pour test	.19	.19½
Steam refined:		
600	.11	.11½
650	.12½	.13
600 Pennsylvania flash	.13½	.14
630 flash	.17½	.18
600 Warren E filtered	.13½	.14

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:		
150-3		.10
180-3		.11¼
180-4		.10¾
200-3		.11¾
200-4		.11¼
250-3		.13¾
250-4		.13¼
280-3		.14¾
280-4		.14¾
300-3½		.15½
400-3½		.16
100-2 paraffin oil		.05¾
15-20 Cold Test:		
200-3		.10¾
200-4		.10¼
240-3		.12¾
240-4		.12¼
280-3		.13¾
280-4		.13

GULF COAST—

Pale Oils:		
200-3	.07	.07½
360-3	.07½	.08
500-3½	.08½	.09
750-3½	.09	.09½
1,200-3½	.09½	.09¾
2,000-4	.09¾	.10
Red Oils:		
200-5-6	.07	.07½
300-5-6	.07¼	.07½
500-5-6	.08	.08½
750	.08½	.09
1,200-5-6	.09	.09½

CALIFORNIA (moving to dom. market)

Pale Oils:		
100-2½-3	.06½	.06¾
200-2½-3	.06¾	.07
300-3-3½	.07	.07½
400-3-4	.09	.09½
450-3-4	.09¾	.10
550-3-4	.10	.10¼
600-3-4	.10¼	.10½
Red Oils:		
200-4-5	.06½	.06¾
300-5-6	.06¾	.07
350-5-6	.07	.07½
400-5-6	.08	.08¼
450-5-6	.08¼	.08½
500-5-6	.08½	.08¾
600-5-6½	.09	.09½
700-6½ plus	.09½	.10
750-6½ plus	.10	.10¼
900-6½ plus	.10¼	.10½

PENNSYLVANIA—

150 vis. at 70° F., color, 400-405 flash:		
Zero pour test	.18	.18½
10 pour test	.17½	.18
15 pour test	.17	.17½
25 pour test	.16	.16½
180 vis. at 70° F., 3 color:		
25 pour test	.19	.19½
200 vis. at 70° F., 3 color:		
Zero pour test	.22½	.23
10 pour test	.21½	.22
15 pour test	.21	.21½
25 pour test	.20	.20½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale	.02⅝	.02¾

PENNSYLVANIA (inland refineries)—

122-124 (a.m.p.) w.c. scale	.0245	.0250
124-126 (a.m.p.) w.c. scale	.0250	.0255

NEW YORK—

Wax in bags fully refined:		
123-125 (a.m.p.) wax		.0445
125-127 (a.m.p.) wax		.0455
128-130 (a.m.p.) wax		.0480
130-132 (a.m.p.) wax		.0505
133-135 (a.m.p.) wax		.0535
135-137 (a.m.p.) wax		.0560
124-126 (a.m.p.) w.s.	.0240	.0250
124-126 (a.m.p.) y.s.	.0240	.0245
Petrolatum in barrels, carload lots:		
Dark green		.01⅝
Amber	.02⅜	.03
Extra amber	.03	.03½
Lily white	.06⅝	.06¾
Snow white	.07⅝	.07⅞
Cream	.05⅝	.05⅝

Export Prices

GASOLINE

GULF COAST—

U. S. Motor	.05⅝	.05½
60-62 400		.05½
61-63 390		.05⅝
64-66 375		.05⅝

LOS ANGELES—

U. S. Motor grades:		
53-55 octane		.04¼
55-56 octane	.04¼	.04½
65-67 octane	.04½	.04⅝
67-69 octane	.04⅝	.05
Above 69 octane	.05	.05¼
65 and above 400 e.p.	.05¼	.05⅝

KEROSENE

GULF COAST—

41-43 prime white		.03⅝
41-43 water white		.04
44 water white		.04¼

LOS ANGELES—

41-43 water white	.04¼	.04⅝

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—

Cylinder Stocks:		
600 Warren E		.20½
600 S.R. unfiltered	.18½	.19
650 S.R., unfiltered	.19	.19½
600 flash S.R.	.19½	.20
630 flash S.R.		.24
Bright Stocks:		
8 color		.26
6½ plus color in dilution		.25½

NEUTRAL OIL

200-3 color	.27½	.28
150-3 color	.23	.23½

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.		.04125
125-127 a.m.p.		.0425
128-130 a.m.p.		.0450
133-135 a.m.p.		.0525
135-137 a.m.p.		.0550
Crude scale:		
124-126 w.s.	.0240	.0250
124-126 y.s.	.0240	.0245

CRUDE OIL PRICES

Oklahoma, Kansas, North Central and East Central Texas

(January 9, 1936)

East Texas*	$1.16
Van, Tex.†	1.02
Altus and Tipton, Okla.‡	1.08
Other fields (see gravity table).	

*All companies. †Pure Oil Co. ‡Gypsy Oil Co.

West Texas

Crane, Upton, Howard, Glasscock and Mitchell Counties	$ .80
Winkler County	.85
Lea County, N. Mex.	.85
Pecos County*	.85
Pecos shallow†	.75

*Shell Petroleum Co., Gulf Pipe Line Co. and Humble Oil & Refining Co. †Shell Petroleum Corp.

Note—For Humble, Magnolia and Texas Co.'s West Texas and Lea County prices see gravity table. Above prices are those of other buyers.

Rocky Mountain States

(Effective January 8, 1936)

Ilea, Colo., light*	$1.06
Ilea, Colo., heavy*	1.00
Greybull, Wyo.*	1.30
Torchlight, Wyo.*	1.28
Grass Creek, Wyo., light*†	1.25
Grass Creek, Wyo., heavy*†	.72
Hamilton Dome, Wyo.*	.67
Elk Basin, Wyo., light*†	1.28
Frannis, Wyo., heavy*	.72
Frannis, Wyo., light (Feb. 24, 1936)*	.78
Hogback, N. Mex.*	1.21
Pondera, Mont.* (Jan. 29, 1936)	1.05
Salt Creek, Dutton Creek and Midway, Wyo., take Stanolind's Oklahoma prices on a gravity basis.	
Big Muddy, Wyo.†	1.11
Rock Creek, Wyo.†	1.12
Artesia, N. Mex. (Dec. 1, 1933)‡	.75
Maljamar, N. Mex. (Sept. 29, 1933)‡	.75
Fort Collins and Wellington, Colo.‡ (Jan. 9, 1936)	See Note
Florence, Colo.	.98
Lance Creek, Wyo.	.85
Lost Soldier, Wyo. (Sept. 30, 1933)	.88
Hudson, Wyo. (June 2, 1931)	.65
Sunburst, Mont.	1.25
Cat Creek, Mont.	1.28
Cut Bank, Mont. (May 23, 1934)	1.45

*Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co.

Note—Fort Collins and Wellington are not posted, price 5 cents under quotation of Salt Creek crude of like gravity (Fort Collins 38°; Wellington 33°). *Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co.

Southwest Texas

(January 9, 1936)

Saxet	$ .90
Mirando	.85
Pettus	1.25
Salt Flat*	.97
Salt Flat‡	.97
Darst Creek*	.97
Darst Creek†	.97
Luling	.90
Lytton Springs	1.00
Duval County	.85

*Humble Oil & Refining Co. †Magnolia Petroleum Co., Gulf Pipe Line Co. and Texas Co. ‡Shell Petroleum Corp. Saxet posted by Humble and Texas; Mirando by Humble and Magnolia; Pettus by Humble; Salt Flat by Humble; Luling and Lytton Springs by Magnolia; Duvall by Texas Co.

Middle Western States

OHIO OIL CO.

Lima (Jan. 10, 1936)	$1.25
Illinois (Jan. 9, 1936)	1.33
Princeton, Ind. (Jan. 9, 1936)	1.33
Midland, Mich. (Jan. 13, 1936)*	1.32
West Branch, Mich. (Nov. 7, 1935)	.96
Muskegon, Mich.	1.00
Ogemaw, Mich.	1.06
Eastern Kentucky:	
Big Sandy River (Jan. 9, 1936)	1.30
Kentucky River (Jan. 9, 1936)	1.38
Western Kentucky (Jan. 9, 1936)	1.23

*Posted by Pure Oil Co., Simrall Pipe Line Co. Ogemaw and West Branch, Mich., by Simrall Pipe Line Co. Eastern Kentucky crude purchased by Ashland Refining Co., Ashland, Ky. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Gulf Coast

(January 9, 1936)

Cleveland, Tex.	$1.10
Hardin, Tex.	1.03
Greta, Tex.	.90
Refugio, Tex., heavy	.90
Tomball, Tex.	1.30
LaFitte, La.	1.12
Livingston, Tex.	1.15
Bosco, La. (Jan. 16, 1936)	1.05
Evangeline, La.	1.07
Welsh, La.	.96

Cleveland and Hardin by Magnolia; Greta by Texas Co.; Refugio by Humble; Tomball by Humble and Magnolia; LaFitte by Texas Co.; Bosco by Pure; Evangeline and Welsh by Stanolind Oil & Gas Co.; Livingston by Shell Petroleum Corp.

North Louisiana and Arkansas

Smackover, all grades (Jan. 10, 1936)*	$ .75
Smackover, all grades (Jan. 9, 1936)†	.80
Tullos and Urania (Jan. 10, 1936)	.97
Nevada, Ark. (Jan. 10, 1936)	.65
El Dorado East Field (Jan. 16, 1936)	.75
Converse, Holly, Pleasant Hill and Zwolle (Jan. 10, 1936)*	1.10
Lisbon, Ark. (Jan. 10, 1936)*	1.10
Elm Grove, La. (Jan. 10, 1936)	.80

*Standard Oil Co. of Louisiana, Gulf Refining Co., Louisiana Oil Refining Co., Texas Co. (effective January 14) and Magnolia Petroleum Co. (effective January 16). Urania by H. L. Hunt Co. and Louisiana Oil Refining Co. Nevada by Standard of Louisiana. El Dorado East field by Magnolia Petroleum Co. Phillips Petroleum Co. (effective January 17), posts 75 cents for all grades in Union and Ouachita Counties, Arkansas.

Eastern States

TIDE WATER PIPE CO.
(Effective Jan. 13, 1936)

Bradford, Pa.	$2.45
Allegany, N. Y.	2.45

SOUTH PENN OIL CO.
(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines (Bradford field)	2.45
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.17
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.12
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.97
Corning Grade Oil in Buckeye Pipe Line Co.'s lines	1.43

PENNZOIL CO.
(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines:	
Group A — Includes Cochran, Franklin, Hamilton and Doolittle districts.	2.43
Group B — Includes Titusville district.	2.41
Group C — Includes Turkey and Tidioute districts.	2.40
Group D — Includes Bear Creek and Porkey districts.	2.39
Group E — Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jamesen, Kenerdell, Emlenton, Tiona, Lacey and Kinzua districts.	2.36

Price depends on lengths of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective Jan. 13, 1936)

Cabin Creek, W. Va.	$2.12
Bradford Hollow, W. Va.	2.12
Kelly Creek, W. Va.	2.12

Canada

Ontario (Sept. 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (Feb. 3, 1936):†	
Clear naphtha	2.70
Discolored naphtha	2.46
Crude oil, 50 gravity	2.33
Crude oil, 45 to 49.9	2.13
Crude oil, 40 to 44.9	1.58

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$ .82

*F.o.b. ship, based on February transactions and exclusive of production and export taxes and bar dues.

Melvin W. Pettit, for years gas engineer and geologist for Columbia Gas & Electric Corp., resigned recently to become refinery engineer for the Lummus Co., New York.

Crude Prices by Gravities

Gravity—	Oklahoma, Kansas, and Salt Creek, Wyo.	Central and North Texas	East Central Texas	North Louisiana, Arkansas	Gray County, Texas	Carson and Hutchinson Counties, Texas	Conroe, Texas	West Texas and Lea County, New Mexico	Gulf Coast, Texas and Louisiana	Anahuac and Dickinson, Texas	Iowa and Cameron Meadows, Texas
Below 20	....	....	....	....	....	....	....	....	$ .92	....	$ .82
20-20.9	....	....	....	....	....	....	....	....	.94	....	.84
21-21.9	....	....	....	....	....	....	....	....	.96	....	.86
22-22.9	....	....	....	....	....	....	....	....	.98	....	.88
23-23.9	....	....	....	....	....	....	....	....	1.00	....	.90
24-24.9	....	....	....	....	....	....	....	....	1.02	....	.92
Below 25	$ .86	....	....	$ .78	....	....	....	....	....	....	....
25-25.9	.88	....	....	.80	....	....	....	....	1.04	....	.94
26-26.9	.90	....	....	.82	....	....	....	....	1.06	....	.96
27-27.9	.92	....	....	.84	....	....	....	....	1.08	....	.98
28-28.9	.94	....	....	.86	....	....	....	....	1.10	....	1.00
Below 29	.94	$ .84	$ .91	....	....	....	....	$ .75	....	....	....
29-29.9	.96	.86	.93	.88	....	....	....	.76	1.12	....	1.02
30-30.9	.98	.88	.95	.90	....	....	....	.78	1.14	$1.04	1.04
31-31.9	1.00	.90	.97	.92	....	....	....	.80	1.16	1.06	1.06
32-32.9	1.02	.92	.99	.94	....	....	....	.82	1.18	1.08	1.08
33-33.9	1.04	.94	1.01	.96	....	....	....	.84	1.20	1.10	1.10
34-34.9	1.06	.96	1.03	.98	....	....	....	.86	1.22	1.12	1.12
Below 35	....	....	....	....	$ .86	$ .81	....	....	....	....	....
35-35.9	1.08	.98	1.05	1.00	.88	.83	$1.24	.88	1.22	1.14	1.12
36-36.9	1.10	1.00	1.07	1.02	.90	.85	1.26	.90	1.22	1.16	1.12
37-37.9	1.12	1.02	1.09	1.04	.92	.87	1.28	.90	1.22	1.18	1.12
38-38.9	1.14	1.04	1.11	1.06	.94	.89	1.30	.90	1.22	1.20	1.12
39-39.9	1.16	1.06	1.13	1.08	.96	.91	1.32	.90	1.22	1.22	1.12
40 and over	1.18	1.08	1.15	1.10	.98	.93	1.34	.90	1.22	1.24	1.12

Magnolia Petroleum Co. in the East Texas field pays 7 cents per bbl. less than above posted prices in that field.

STANDARD OIL CO. OF CALIFORNIA

Crude oil prices at the well effective March 7, 1936

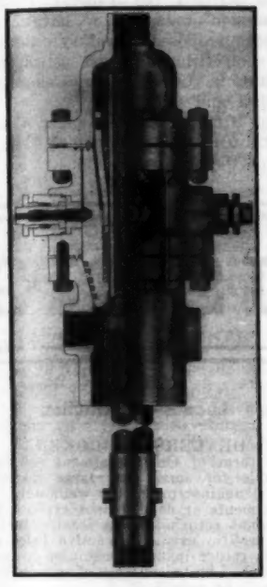
Gravity—	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canon	Athens-Rosecrans	Dominguez	Elwood Terrace	Torrance	Richfield	Whittier East Coyote (La Habra)	Montebello	West Coyote Hills	Santa Fe Springs	Mountain View	Elk Hills	Buena Vista Hills Midway-Sunset except Lakeview Area	Lakeview Area	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills
14-14.9	$ .80	$ .79	$ .74	$ .78	$ .79	$ .80	$ .76	....	....	....	$ .80	$ .76	$ .76	$ .77	$ .78	....	....	$ .65	$ .70	$ .65	$ .70	$ .70	....	....
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	....	.82	.76	.76	.77	.78	....	....	.65	.70	.65	.70	.70	....	....
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	....	.85	.76	.78	.77	.78	....	$ .70	.66	.74	.66	.74	.71	$ .70	....
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	....	.88	.78	.82	.77	.80	....	.70	.68	.78	.68	.78	.72	.70	....
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	....	.91	.80	.86	.77	.84	$ .78	.73	.71	.82	.71	.82	.74	.70	....
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	....	.93	.84	.89	.79	.88	.78	.77	.74	.87	.74	.86	.78	.72	....
23-23.9	.95	.86	.77	.96	.99	1.02	.96	$ .84	$ .79	....	.96	.88	.93	.82	.92	.78	.80	.77	.92	.77	.90	.82	.76	....
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	....	.99	.91	.96	.85	.96	.82	.84	.80	.97	.80	.94	.86	.79	....
25-25.9	1.02	.95	.82	1.03	1.05	1.11	1.03	.93	.83	....	1.02	.95	....	.89	.99	.86	.88	.83	1.01	.83	.98	.90	.83	....
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	....	1.06	.98	....	.92	1.03	.90	.91	.86	1.06	.86	1.02	....	....	....
27-27.9	1.10	1.06	.88	1.11	1.12	....	1.10	1.03	.88	....	....	1.02	....	.96	1.06	.95	.95	.88	1.10	.88	1.06	....	....	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	....	1.06	....	.99	1.10	.99	.99	.91	1.15	.91	1.10	....	....	....
29-29.9	1.17	1.15	.93	1.18	1.18	F.O.B.	1.17	1.12	.93	....	....	1.09	....	1.03	1.14	1.03	1.02	.94	1.20	.94	1.14	....	....	....
30-30.9	1.21	1.19	.95	1.22	1.21	our	1.21	1.17	.95	F.O.B.	....	....	....	1.07	1.17	1.03	1.06	.97	1.25	.97	1.18	....	....	....
31-31.9	....	....	....	....	1.24	Pipe	1.24	1.22	.97	Ship	....	....	....	1.11	1.21	1.13	1.09	.99	1.29	.99	....	....	....	....
32-32.9	....	....	....	....	1.27	Line	1.27	1.27	1.00	....	....	....	....	1.14	1.25	1.16	1.12	1.02	1.34	1.02	....	....	....	....
33-33.9	....	....	....	....	....	....	....	1.32	....	$1.28	....	....	....	1.18	1.28	1.20	1.17	1.04	1.38	1.04	....	....	....	$1.19
34-34.9	....	....	....	....	....	....	....	1.37	....	1.32	....	....	....	1.22	1.32	1.25	1.20	....	....	....	....	....	....	1.23
35-35.9	....	....	....	....	....	....	....	1.42	....	1.35	....	....	....	1.25	....	1.29	....	....	....	....	....	....	....	1.27
36-36.9	....	....	....	....	....	....	....	1.46	....	1.39	....	....	....	1.29	....	1.33	....	....	....	....	....	....	....	1.31
37-37.9	....	....	....	....	....	....	....	1.51	....	1.43	....	....	....	1.33	....	1.37	....	....	....	....	....	....	....	1.35
38-38.9	....	....	....	....	....	....	....	1.56	....	....	....	....	....	1.36	....	1.42	....	....	....	....	....	....	....	1.39
39-39.9	....	....	....	....	....	....	....	1.61	....	....	....	....	....	1.40	....	....	....	....	....	....	....	....	....	1.43
40-40.9	....	....	....	....	....	....	....	1.66	....	....	....	....	....	1.43	....	....	....	....	....	....	....	....	....	....

Newhall, McKittrick, Kern River and Round Mountain 70 cents for all grades. Kern Front 70 cents for all grades.

NEW OR IMPROVED EQUIPMENT

Pressure-Type Tubing-Head Is Put on Market by Beaumont

Designed to permit running tubing, seating packer or reworking a well without killing the well with heavy mud, the Dreadnaught HX-10 pressure-type tubing-head is announced by Beaumont Iron Works, Beaumont, Tex. The body and spool of this tubing-head screw onto the oil-string. The blowout-preventer adapter-flange and blowout-preventer equipment bolt down against a metal seal ring on top of the spool. The well is drilled in and the tubing is run through blowout-preventers. The entire hanger assembly is screwed on the last joint of tubing and is also landed through blowout-preventers. The hanger assembly consists of a tapered hanger provided with five rings of square hydraulic packing, which packs off in the tapered bowl of the tubing head body; a J-tool device integral with the tapered hanger and supporting the tubing string while the hanger assembly is being set; a combination slip-bowl and packing-gland, which screws into the tapered hanger and compresses four rings of square packing that effect a seal between the inside wall of the tapered hanger and the outside of the tubing nipple; a set of four-segment slips, which support the tubing after the J-tool is released; and a 12-foot tubing nipple, which screws into the collar on the last joint of tubing.



After the blowout-preventer equipment is installed and before the well is drilled in, the four T-bolts are backed out until they form a seal against the tapered brass rings in the recess of the thrust bolt. After the hanger assembly is seated in the bowl of the tubing-head, the four T-bolts are screwed into the slot of the hanger to hold it securely in place.

With the hanger assembly held in place by the four T-bolts, the blowout-preventer adapter-flange and blowout-preventer equipment are removed. The J-tool is released to set packer and lower tubing to the desired depth, the 12-foot nipple furnishing ample space for this operation.

Here and There With Men Who Manufacture Equipment

Cummins Engine Co., Columbus, Ind., has added two new dealers to its organization: West India Machinery & Supply Co., 23 Commercia Street, San Juan, Porto Rico, and K. A. McIntyre, 14 West Hudson Street, Columbus, Ohio.

Roy E. Busch, 10 North Elwood Avenue, Tulsa, has been appointed to promote the sale of Bridgeport Brass Co. products. W. C. Norris, Manufacturer, Inc., Tulsa, is exclusive agent for Bridgeport condenser tubes and uses Bridgeport "Duronze" in the manufacture of corrosion-resistant sucker rods and polished rods sold under the name "Norris Duronze."

Paul Obergfell, head of the engineering department of Edeleanu Co., Ltd., has been appointed manager of the American organization, Edeleanu Co., Ltd., New York.

The Pittsburgh Equitable Meter Co. and its subsidiary, the Merco Nordstrom Valve Co., Pittsburgh, Pa., have appointed Roy R. Bush and Earl P. Martin to their sales staff.

Gustin-Bacon Manufacturing Co. has opened offices in the Texas Pacific Railway Terminal in Fort Worth, Tex. H. E. Burtner represents the company in that city and Dallas.

Contract Welders, Inc., has acquired Industrial Welding & Cutting Co. The two plants in Cleveland, Ohio, will be consolidated as Contract Welders, Inc., in large quarters at 2545 East Seventy-ninth Street, Cleveland.

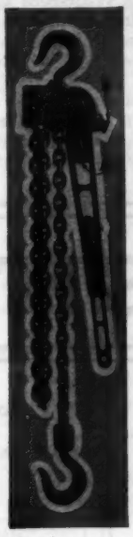
J. D. Wright and Karl H. Runkle have been appointed assistant managers of the General Electric Co.'s industrial department, J. E. N. Hume, manager, announces.

M. Rogers has been named general factory manager of Caterpillar Tractor Co., Peoria, Ill., and James R. Munro succeeds Mr. Rogers as factory manager of the tractor division.

Roots-Connersville Blower Corp., of Connersville, Ind., announces that its Chicago branch office is located in the Marquette Building, 140 South Dearborn Street, in charge of William Townsend, assisted by James T. Sutliff.

General Utility Tool Pulls or Lifts at Any Desired Angle

Chisholm-Moore Hoist Corp., Tonawanda, N. Y., has introduced the CM puller, a general utility tool for lifting or pulling vertically, horizontally or at any angle. Capacities are three-fourths ton and 1½ tons. The puller is intended for numerous pulling jobs, such as tightening guy-wires, stretching fence, pulling posts, trench work and also for general maintenance and construction service.



An efficient gear reduction in both capacities provides for a minimum of effort to operate the ratchet handle, 43 pounds to pull three-fourths ton. Lightweight facilities handling the three-fourths ton size weighs 17 pounds. Little space is required in service or storage as minimum distance between hooks on the three-fourths ton size is only 9 inches. The handle is collapsible for toolbox storage. Alloy steel chain, with ultimate strength considerably in excess of five times capacity load, cannot kink or become bent or strained in handling or storage.

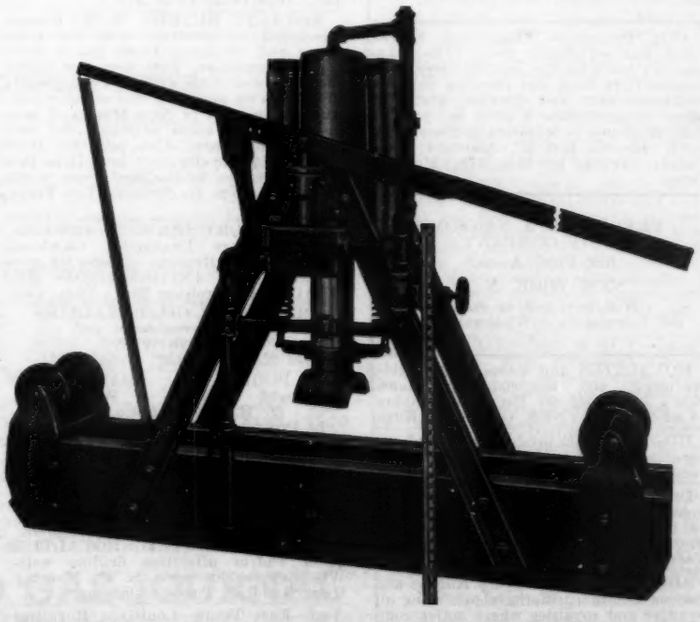
The firm name of Mark O'Dea & Co., New York advertising agency, has been changed to O'Dea, Sheldon & Co. George H. Sheldon, now executive vice president, was for years advertising counsel for the Pennsylvania Grade Crude Oil Association.

Big Shorty Does Quick Work in the Field

Supplementing its line of pipe-cleaning and pipe-straightening machines, the New Deal Specialty Co., Okmulgee, Okla., has placed on the market its Model E "Big Shorty" machine, designed to straighten rotary drillstem and kellies as well as slightly bent pipe.

Big Shorty is a short, squat, sturdy machine, 5 feet high on a 6-foot frame, with a 12-inch ram stroke, and exerting a pressure of 45,000 lbs. It is a hand-operated model, of unusual strength, compactness and portability. The yardstick shown in the picture indicates the size of this unit, which can be set on the derrick walk for straightening drillstem, etc.

Big Shorty is designed for those who operate over a widely scattered territory and where equipment must be transported often at minimum expense. It can be easily moved from rig to rig or from field to field. The New Deal company has four other models of pipe-straighteners, both hand-operated and power-driven units, the fastest and most powerful of which is the "Ben Franklin Special," equipped with high-speed and high-pressure pumps. Literature may be obtained on request.



Grand Old Man of the Petroleum Industry

Regulations for the selection of the "Grand Old Man of the Petroleum Industry," and "Grand Old Man of Tulsa" have been announced by the historical division of the "Old Timers" committee of the International Petroleum Exposition. H. R. Gruber of the Union Wire Rope Corp. is chairman of the division.

Medals will be awarded to the two men selected for the above honors at a fitting ceremony at the International Petroleum Exposition in Tulsa, May 16 to 23.

The historical division, appointed by Victor F. Barnett, chairman of the "Old Timers" committee consists of: H. R. Gruber, chairman; J. Edgar Pew, Sun Oil Co., Philadelphia; John P. McGoldrick, Texas Pipe Line Co.; James McIntyre, The Oil & Gas Journal; C. L. McMahon, J. P. Flanagan, and B. M. Gessel, oil producer.

The committee determined that "Old Timers" nominated for "Grand Old Man of the Industry" must have been actively engaged in the oil industry for at least 50 years and to have contributed to the well being of the industry by personal example, inspiration, discoveries or inventions. The applicant should be present at the exposition, unless he has a reason acceptable to the committee for not attending.

Those nominated for the honor of "Grand Old Man of Tulsa" must have been active in the petroleum industry for at least 30 years and have spent at least 20 years of that time in Tulsa. He must be a resident of Tulsa at the present time.

The historical committee asks "old timers" who wish to compete for the honors, or friends who wish to nominate candidates, to write the "Old Timers" committee of the International Petroleum Exposition.

Sub-committees are being named to work out plans for memorial, registration, pins and medals, and entertainment for the "old timers." A replica of the old Drake well is being made into a club house for the "old timers" during the exposition.

Tretolite Patents

LOS ANGELES, Calif., Mar. 28.—U. S. Commissioner David B. Head, sitting as special master in a suit filed here by the Tretolite Co. and the Tretolite Co. of California, Ltd., held U. S. patents Nos. 1,223,659 and 1,467,831, involving processes for treating petroleum emulsions, to be valid. California Production Co., Henry Branham, and Arthur J. Dietrick were held to have infringed the latter patent by using a chemical, "Hydrate 488," for this purpose. Research Products Co., Ltd., and Abraham M. Herbsman, manufacturers of the chemical, were held to have contributed to the infringement by furnishing the reagent for the purpose of the patent. The report of the special master recommends that the Federal District Court issue an injunction "restraining the defendants from the acts found to infringe Letters Patent No. 1,467,831 and that an accounting of profits and damages be had."

Approve Code

SALT LAKE CITY, Utah, Mar. 30. Representatives of several oil companies advised the Federal Trade Commission today they have approved a proposed voluntary code of fair competition for the petroleum industry in Utah, Idaho, Colorado, Montana and California.

Paul Hirth, district manager, Continental Oil Co., was named chairman of the western group.

CLASSIFIED ADVERTISING

Royalties—Production

Brokers—Salesmen

Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. All offerings meet the requirements of the Securities and Exchange Commission. Inquiries invited.

B. D. BUCKLEY

Paul Brown Bldg., St. Louis, Mo.

OIL Production, Royalties, Leases, Land and estimating their values, has been my work for the past 30 years, with headquarters here, but covering parts of Oklahoma and New Mexico, States of many opportunities. I offer my services and experience to investors in these lines. E. B. Reeves, Box 13, Alanreed, Gray County, Texas, or Box 475, McLean, Texas.

FREDERICK A. SANSOME AND COMPANY
522 Fifth Avenue
NEW YORK, N. Y.
Will buy, sell or quote.
Oil Interests. Wholesale Only.

ROYALTIES and leases in all fields, producing and nonproducing, Kans., Okla., Tex. Get my list before buying. JAMES R. HAYNES, Grantville, Kans.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Oklahoma.

Drilling Block—1500 acres, exceptional geology by reputable geologists. Area Central Texas, Strawn series, long lived, prolific, depth 2500. P. O. Box 1903, Fort Worth, Texas.

BIG Oil Boom in Western Kansas and Eastern Colorado. We have producing oil royalties and royalties where major companies are drilling. Write us your wants.
OSBORN & CO.,
147 N. Topeka St., Wichita, Kansas.

Royalties—Production

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma.

EXTENDING FLORIDA PROGRAM
Drilling Blocks Supported by Geophysics, Geology and Financial Assistance Now Ready. Responsible Independent Operators Contact.
OIL DEVELOPMENT CO. OF FLORIDA
Groveland, Florida.

PRODUCING OIL ROYALTIES
Bought (Wholesale) Sold.
Inquiries invited from Oil Companies, Bankers, Dealers.
JOHN J. KOEHLER
20 Broad St. New York.

FOR SALE: Drilling blocks 5000 acres up. Miller, Lafayette, Nevada and Columbia Counties, Arkansas. Titus, Cass and Bowie Counties, Texas. Maps and details. Write La-Ark-Tex Resource Co., Inc., Texarkana, U. S. A.

ROYALTY BUYERS. S. W. Pressey purchased at receivers sale the great Starr well on Vegas Dome and is drilling to completion. This deep test highly recommended. Now drilling Pennsylvania at 5100 with good gas and oil showings. The greatest bet in New Mexico. I have optioned 2600 acres adjoining the well and all structural. Can sell this tract with its ⅛ Royalty very low. Here is a real proposition as the land alone worth the money. Wm. H. Springer, Las Vegas, New Mexico.

OIL REPORT SERVICE—Oklahoma, Kansas, Texas Panhandle. Oklahoma State Drilling Reports. Write for particulars. OIL INFORMATION BUREAU, 501 Petroleum Bldg., Okla. City.

PRODUCING OIL ROYALTIES
for dealers.
H. P. BOWEN
842 Kennedy Bldg., Tulsa, Okla.

VAN POOL — EAST TEXAS
Bought — Sold — Wholesale.
W. R. Brown & Co., Inc.
14 Prospect Pl., East Orange, N. J.

MONTHLY PAYING ROYALTIES on which we have filed SCHEDULES A with the SEC at WASHINGTON.
Quoted Dealers Exclusively.
W. E. COOK
Suite 812, Palace Bldg., Tulsa, Okla.

PRIME POTENTIAL ROYALTIES under and/or offsetting drilling wells. Wholesale exclusively. L. E. Morency, Hunt Building, Tulsa, Oklahoma.

Van—East Texas—Louisiana Royalties Bought—Sold.
WILLIAM MONROE LAYTON
67 Wall St., Suite 1510, New York City.

Royalties—Production

NOTICE TO INVESTORS
If interested in making an investment in Producing or Non-producing oil royalties, communicate with
HARRY M. CROWE
1402 Hunt Bldg.
Tulsa, Oklahoma.

PRODUCING OIL ROYALTIES
(ALL FIELDS)
Bought, Sold and Quoted.
HENRY L. BAKER CO.
207 Van Nuys Bldg.,
Los Angeles, Calif.
Telephone Trinity 7391.

NEW OIL and Gas Structures located for you by the Quickest and Most Economical Method known. The Mid-West Development Co., 423 Cuyahoga Building, Cleveland, Ohio.

I BUY AND SELL oil royalties and producing wells, East Texas field. B. A. SKIPPER, Longview, Texas.

Leases—Production

FOR SALE—Five year paid up oil and gas lease on ten thousand acres in Schleicher County, Texas. Address H. B. Opp, Burnet, Texas.

YOAKUM Co., Texas, 1280 acres, Sec. 596 and 597. Will lease all or part. Submit offer to owner, Dr. J. A. Robinson, Fort Harrison, Montana.

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, New Mexico.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

FOR SALE—40,000 acres, oil leases in Kit Carson, Cheyenne and Kiowa Counties, Colo., 10 yr. leases 25c per acre rental, rentals paid for 1 yr. I furnish leases anywhere in Colo. or Kans. A. P. Tone Wilson, Burlington, Colorado.

PROPOSALS invited—For oil lease and drilling contract on 3407 acres favorably located in Houston County. Solid. Good titles. Quick delivery.
EDGAR C. ARLEDGE
Crockett, Texas.

FOR SALE—Three Thousand Acre Drilling Block lying Southeast of Howard-Glasscock Permian Pool and Northwest of Mertzon Shallow Pool showing splendid geology. This is a real opportunity. Address H. B. Opp, Burnet, Texas.

LEASES and Royalties for sale. Rodessa, Sligo and Bethany area. Also have choice North Louisiana drilling block where opportunity is ripe. A. D. King, with Bi-State Oil Co., Inc., 538 Ricou-Brewster Building, Shreveport, Louisiana.

Leases—Production

DEALERS — BROKERS
New form of Oil Investment especially suitable for small and large investors. Issued against producing wells only. No assessments or development expense. Exceptional return. Wells located in long life prolific area. Attractive price and steady return insures continuing customer demand. Limited number of selected dealers will be appointed.
Write or wire for full information.
W. E. HOUSEL
Field Office:
1212 City Bank Bldg. Shreveport, La.
76 Beaver St. New York City.

N.W. ALABAMA—26,000 Acre 10 year lease. 10 cents acre. Smaller tracts 25 cents. W. A. Feild, 321 W. 16 St., Little Rock, Arkansas.

NEW MEXICO Oil and Gas Leases and Royalties. Also inquiries and listings wanted. F. R. WARN, Santa Fe, New Mexico.

BROKERS AND SALESMEN. I have bought the Starr Well and Vegas Dome near Las Vegas, N. M., fully geologized and recommended structure. Well drilling Penn. formation at 5100 feet. Offsetting leases to this great Starr well afford the greatest opportunity for oil speculation in New Mexico. Will sell at low prices. Address S. W. Pressey, Pueblo, Colo.

12,500 acres ⅞ths 88 leases Noxubee County, MISS. Woodbine sand 2200-2500 ft. 6c acre and 1/64th roy. 5 mos. free, 25c rentals. Operators only. Box 306, Memphis, Tennessee.

FOR SALE, OIL AND MINERAL RIGHTS, under lands in Eastern Colorado, leased in solid blocks, largely by major companies; taken after seismic surveys and core drillings. Titles clear. Get ready for the next big oil play. Warren Shamburg, Burlington, Colorado.

Financing

JAMES E. MILLER, 604 W. Seventh St., Tulsa, Okla., will aid in financial marketing problems. Fee basis.

PROSPECTUSES prepared and deals shaped up for registration or exemption under Federal Security Act. Fee basis. John Morris, Box 5411, Philadelphia, Pa.

For Sale—Maps

MAP OF NEW TALCO FIELD, Titus and Franklin Counties, Texas. All West Texas Counties. Send $1.00 for Oil Map of Texas and Eastern New Mexico.
ZINGERY OIL MAP CO.
Fair Bldg. Ft. Worth, Tex.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

Used Refinery Equipment

Dismantling two large modern refineries located in Oklahoma and Texas. Everything from a Cracking Still to a Filling Station Pump. Thousands of items. Send for latest illustrated catalog. Get our quotations and see how much you save.

BROWN-STRAUSS CORPORATION

Main Office—1446 Guinotte Ave., Kansas City, Mo.

Branches

Sapulpa, Okla. Arkansas City, Kans. Pyote, Texas.

LARGEST SURPLUS STOCKS
WIRE ROPE

Drastically reduced prices. Drilling lines, Sand lines, Hoisting cables. All sizes ⅝"-2"—All constructions. Also wire rope for any other purpose. Wire or write us—prompt shipments.

DULIEN STEEL PRODUCTS, INC.
233 Broadway, New York City, New York.
"Buyers of surplus steel products."

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25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine-Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor. Six-inch Oster Pipe Threading Machine. Also large stock of lathes, pipe machines, milling machines, etc. Send for our list.
Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio.

SEVERAL USED ROTARY RIGS
Spudders and Drilling Machines.
Several Steel Derricks & Rotary Equip.
J. S. Daniel, Beacon Bldg., Tulsa.

FOR SALE — Three portable Southwestern absorption gasoline plants complete. Globe Gasoline Company, Blackwell, Oklahoma.

TWO—300 amp. Lincoln Engine driven welders. A-1 condition. Stationary type. Service Co., 3732 Cedar, Cleveland, Ohio.

FOR SALE

2—80 H.P. Bessemer direct driven tandem compressors. 12" low, 7" high cylinders. (Ideal for repressuring.)
2—80 H.P. Bessemer direct driven compressors, 14" cylinders.
6—7' x 27" gasoline storage tanks.
Other gasoline plant equipment.
P. O. BOX 322
TULSA, OKLAHOMA.

FOR SALE, complete rotary or standard tool rig, complete string of drilling tools from 24" to 5". F. E. Cusick, 409 N. Okmulgee Ave., Okmulgee, Okla. Ph. 1723.

Equipment Wanted

WANTED
Complete used equipment for small absorption plant capable of handling twenty million C.F. gas yielding about 0.25 gal. per thousand.
CALGARY BROKERS, LTD.
Calgary, Canada.

Business Opportunities

GEOLOGIST desires connection on percentage basis plus expenses. Highest credentials. Address Box G-823, The Oil and Gas Journal, 415 Lexington Avenue, New York City.

DRILLING MUD — High absorption, viscosity and gravity. One-third heavy metallic oxides. Correspondence with distributors and heavy users invited. E. P. HUNTER, Bedford, Indiana.

HAVE rich gold mine in South America with plenty good ore. Want to meet party able to finance equipment. $30000 required. No triflers. Address Box H-117, The Oil and Gas Journal, Tulsa, Oklahoma.

FOR PLANT EXPANSION a growing, producing Business Concern will sell participating interest for $30,000 upward, excellent terms. Write S. Gingerich, Springdale, Arkansas.

Mailing Lists

OF ROYALTY investors by deed, guaranteed. Oil Industry Mailing List Co., Tulsa Loan Building, Tulsa, Oklahoma.

ROYALTY OWNERS
Names and addresses in any State. Royalty Lists, Box 105, Ft. Worth.

Incorporations

DELAWARE CHARTERS: Complete incorporating and organizing service $35. Submitted forms. Chas. G. Guyer, Inc., Wilmington, Delaware.

CHARTERS — Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

Patent Attorneys

REGISTERED PATENT ATTORNEYS
United States and Canada.
Before disclosing your invention to anyone, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building,
Washington, D. C.

Help Wanted

PARTNER or associate to join me in establishing Manufacturer's Agency. No capital required. Address Box H-214, The Oil and Gas Journal, Tulsa, Oklahoma.

WANTED—Single man experienced in physical inventory and stock records, both rotary and cable tool oil field supplies, with knowledge of auditing. State age, experience for past five years, present or last employer and references. Address Box H-211, The Oil and Gas Journal, Tulsa, Oklahoma.

WANTED — Oil field machine shop foreman, must have both rotary and cable tool experience. State age, married or single, name of present or last employer and references. Address Box H-112, The Oil and Gas Journal, Tulsa, Oklahoma.

Everything in Refinery Equipment

The Altitude Refinery at Chanute, Kansas.
The Marathon Refinery at Boynton, Oklahoma
The Sinclair Refinery at El Paso, Texas.
The Pure Oil Refinery at Ardmore, Oklahoma.

Everything for sale in these plants. ALL of our EQUIPMENT is RECONDITIONED. Inventories on request. Pressure tanks and Hot Oil Pumps our specialty.

Wire — Phone — Write

W. C. BERRY —or— H. J. GALAMBA

SONKEN-GALAMBA CORPORATION

64 North Second Street Kansas City, Kansas.

Steel Storage Tanks

We will erect latest type 55,000 bbl. all steel storage tanks at a great saving. Over 500 tanks on hands from 500 bbls. to 80,000 bbls.
Four 55,000 bbl. all steel tanks near Seminole, Oklahoma, for rent, we own ground and pipe connections.

We can furnish any quantity of steel tank sheets from ⅛-inch to ½-inch inclusive in carload lots at bargain prices.

Wire—Phone—Write—W. C. Berry

SONKEN-GALAMBA CORPORATION

64 North Second Street Kansas City, Kansas.

Help Wanted

Wanted—Manufacturers' Agent
Company long established in the manufacture of metal cutting tools used by oil well equipment manufacturers has openings in several districts for competent representation. Commission arrangement with person handling noncompetitive lines considered. State experience, references, etc. Address Box H-204, The Oil and Gas Journal, Tulsa, Okla.

WANTED—A salesman to sell bleaching clays to oil refineries and drilling mud to oil producers in Texas and Oklahoma. State qualifications, experience, and references. Address Box H-192, The Oil and Gas Journal, Tulsa, Oklahoma.

WANTED — One Research Organic Chemist and One Research Physical Chemist. Petroleum knowledge desirable but not essential. Give full particulars as to schools attended, degrees obtained, average grades received and enclose photo with your answer. Address Box H-115, The Oil and Gas Journal, Tulsa, Okla.

Situations Wanted

GEOLOGIST — 14 years consultant, familiar with all phases of oil and gas production, available April 1st, on interest and expense basis only. Leonard, 2614 Victor, Kansas City, Missouri.

PETROLEUM Engineer and Executive Manager, now employed, desires change to position of responsibility. Fully qualified design process equipment, handle engineering, erection and operation. Wide acquaintence and broad experience in industry with background chemical engineering training, ten years plant management and eight years design, sales, construction and operation process plants. Can produce results efficiently and economically. Address Box H-202, The Oil and Gas Journal, Tulsa, Okla.

REFINERY SUPERINTENDENT — Graduate chemical engineer, 9 years experience design, construction, operation of cracking, skimming, road oil, asphalt, treating, vapor recovery plants. References. Address Box H-193, The Oil and Gas Journal, Tulsa, Oklahoma.

Accounting-Bookkeeping-Office Manager. Clerical, field clerk and know materials. 7 years experience, 5 years oil field and office. Age 30. Married. References. Unemployed. Go anywhere. Write B. A. Wright, P. O. Box 1874, Tulsa, Okla.

Manufacturers' Representative, well acquainted in Mid-Continent area, wants side line. Straight commission proposition only. Address Box H-116, The Oil and Gas Journal, Tulsa, Oklahoma.

SALESMAN, age 30; seven years' continuous and active brokerage and refinery tank car sales experience in Midwestern territory. Excellent sales record through telephone, personal and direct mail solicitation. Thoroughly experienced in handling and managing office details. Connection with progressive concern desired. Address Box H-113, The Oil and Gas Journal, Tulsa, Oklahoma.

EXPERIENCED SCOUT—Land and production, want permanent connection. Will deliver. 14 years oil experience. Age 35, A-1 references. Address Box H-210, The Oil and Gas Journal, Tulsa, Okla.

MANUFACTURERS REPRESENTATIVE: Well acquainted with purchasing agents and superintendents in Mid-Continent area, would like to acquire specialty and machinery lines. Capable of opening and maintaining office and warehouse and organizing sales force. Exceptional background in organization and management. Address Box H-181, The Oil and Gas Journal, Tulsa, Oklahoma.

Petroleum Eng. Laboratories

GEOLOGIC STANDARDS COMPANY
1600 East 5th Place, Tulsa, Oklahoma.
Porosity-Permeability-Saturation Tests.

CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

1 Inch	*1 time*	*$5.00*
1 Inch	*13 times*	*4.50 per inch*
1 Inch	*26 times*	*4.00 per inch*
1 Inch	*52 times*	*3.50 per inch*

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY

CLASSIFIED RATES

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgment is made, and proofs cannot be shown in advance of publication.

	1 time	2 times	3 times	4 times		1 time	2 times	3 times	4 times
3 Lines	*$1.05*	*$1.80*	*$2.25*	*$3.30*	*7 Lines*	*$2.45*	*$4.20*	*$5.95*	*$7.70*
4 Lines	*1.40*	*2.40*	*3.40*	*4.40*	*8 Lines*	*2.80*	*4.80*	*6.80*	*8.80*
5 Lines	*1.75*	*3.00*	*4.25*	*5.50*	*9 Lines*	*3.15*	*5.40*	*7.65*	*9.90*
6 Lines	*2.10*	*3.60*	*5.10*	*6.60*	*10 Lines*	*3.50*	*6.00*	*8.50*	*11.00*

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

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Oil Man's Calendar

April

6-7-8—Excelsior Springs, Mo., Western Petroleum Refiners Association, Elms Hotel.

9-10—Shreveport, La., A.P.I., southwestern Division of Production, Washington-Youree Hotel.

11-13—Tulsa, Petroleum Industry Electrical Association.

13-17—Kansas City, Mo., American Chemical Society, Petroleum Division, Symposium on Motor Fuels.

14—Los Angeles, Calif., A.P.I., Division of Production, spring meeting.

14-18—Detroit, Mich., Oil Burner Institute.

16-18—Cleveland, Ohio, National Petroleum Association, semiannual meeting, Cleveland, Hotel.

20-25—Houston, Tex., Oil Equipment and Engineering Exposition.

May

5-8—Dallas, Tex., A.G.A. Natural Gas Department, Baker and Adolphus Hotels.

13-15—Tulsa, midyear meeting, American Petroleum Institute, Mayo Hotel.

13-15—Tulsa, Natural Gasoline Association of America, fifteenth annual convention, Hotel Tulsa.

15—Tulsa, Institution of Petroleum Technologists, American Meeting, Mayo Hotel.

16-23—Tulsa, International Petroleum Exposition and Congress.

21—Tulsa, Independent Petroleum Association of America, midyear meeting.

22—Tulsa, National Stripper Well Association.

25-27—New York, A.G.A. Production and Chemical Conference.

25-28—New Orleans, La., National Association of Purchasing Agents Convention.

June

17-20—Dallas, Tex., American Society of Mechanical Engineers.

18-19—State College, Pa., Pennsylvania Grade Crude Oil Association, thirteenth annual meeting.